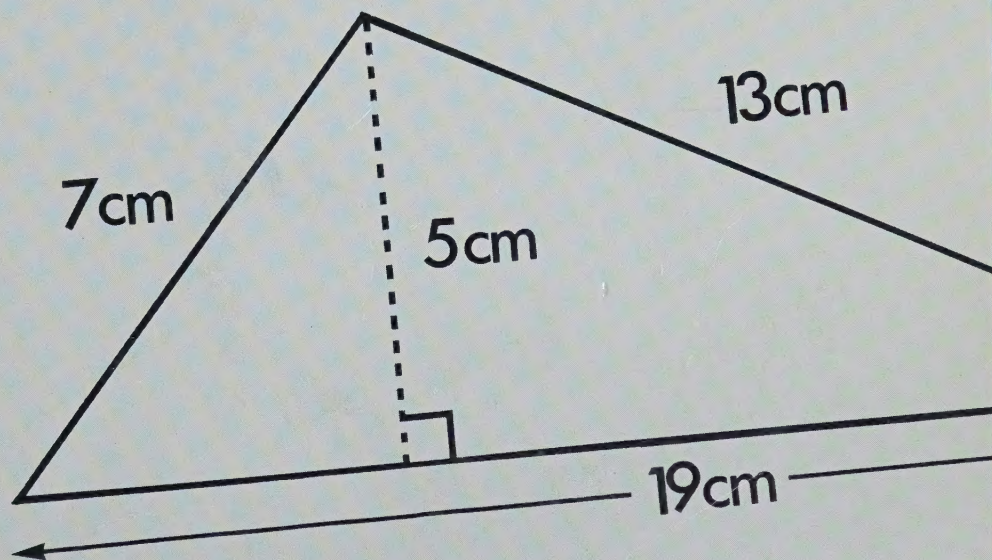


starting points in mathematics

6

tests with answer keys

7. Which is the area of this



- a 39cm^2 b 44cm^2 c 47

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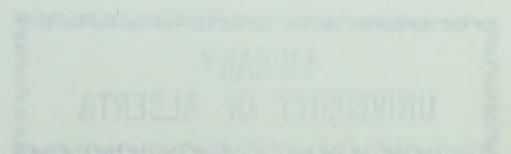


Tests with Answer Keys for

**starting points
in mathematics**

Level 6

GINN AND COMPANY
EDUCATIONAL PUBLISHERS



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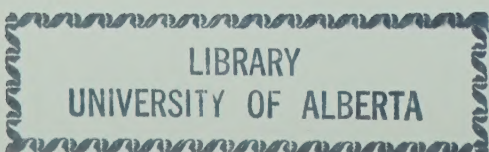
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Printed in Canada



To the Teacher

This book is designed for use with *Starting Points in Mathematics 6 Revised*.

Pretest

This test may be given at the beginning of the school year to identify topics presented in the text that do not need to be studied by some students.

For each student, examine the error pattern for each topic.

Addition/Subtraction	Exercises 7 to 12, 22 to 27, 37 to 42
----------------------	--

Students who receive less than perfect scores should be taught the addition and subtraction unit, Unit 2. Students who receive perfect scores should work on appropriate enrichment and problem-solving tasks with regular review of addition and subtraction while the others work in Unit 2.

Multiplication	Exercises 13 to 15, 28 to 30
Division	Exercises 16 to 18, 31 to 33

Students who receive less than perfect scores should be taught the multiplication and division units, Unit 4 and Unit 7. Students who receive perfect scores should be given the Unit 4 *Checking Up*. If students perform satisfactorily, they should proceed to the Unit 7 *Checking Up* to see how they perform with multiplication and division involving decimals. If successful here, allow them to work on appropriate enrichment and problem-solving tasks with regular review of addition and subtraction while others work in Unit 4 and Unit 7.

Numeration/Decimals/Fractions	Exercises 1 to 6, 19 to 21, 34 to 36
Measurement	Exercises 43 to 54
Geometry	Exercises 55 to 69
Word Problems	Exercises 70 to 75

All students should be taught the related units. Students who receive perfect scores on any topic may act as assistants and be allowed to spend more time on related enrichment and problem-solving activities.

Unit Tests

There are two tests presented for each unit in the student text. *Test A* is parallel in structure to the *Checking Up* in the student text. *Test B* is a multiple-choice test.

Upon completion of a unit, you have the option of using one of *Checking Up*, *Test A*, *Test B*, or your own test as a final review, and another as a test.

For each student, examine the error pattern. Compare it with the page reference given in parentheses on the answer key. When a student exhibits two or more errors for material related to any particular page, he or she should be provided with the corresponding workbook section or reteaching master.

Year-End Test

This test may be given at the end of the school year to evaluate student performance on mathematics skills presented during the year.

For each student, examine the error pattern for each topic.

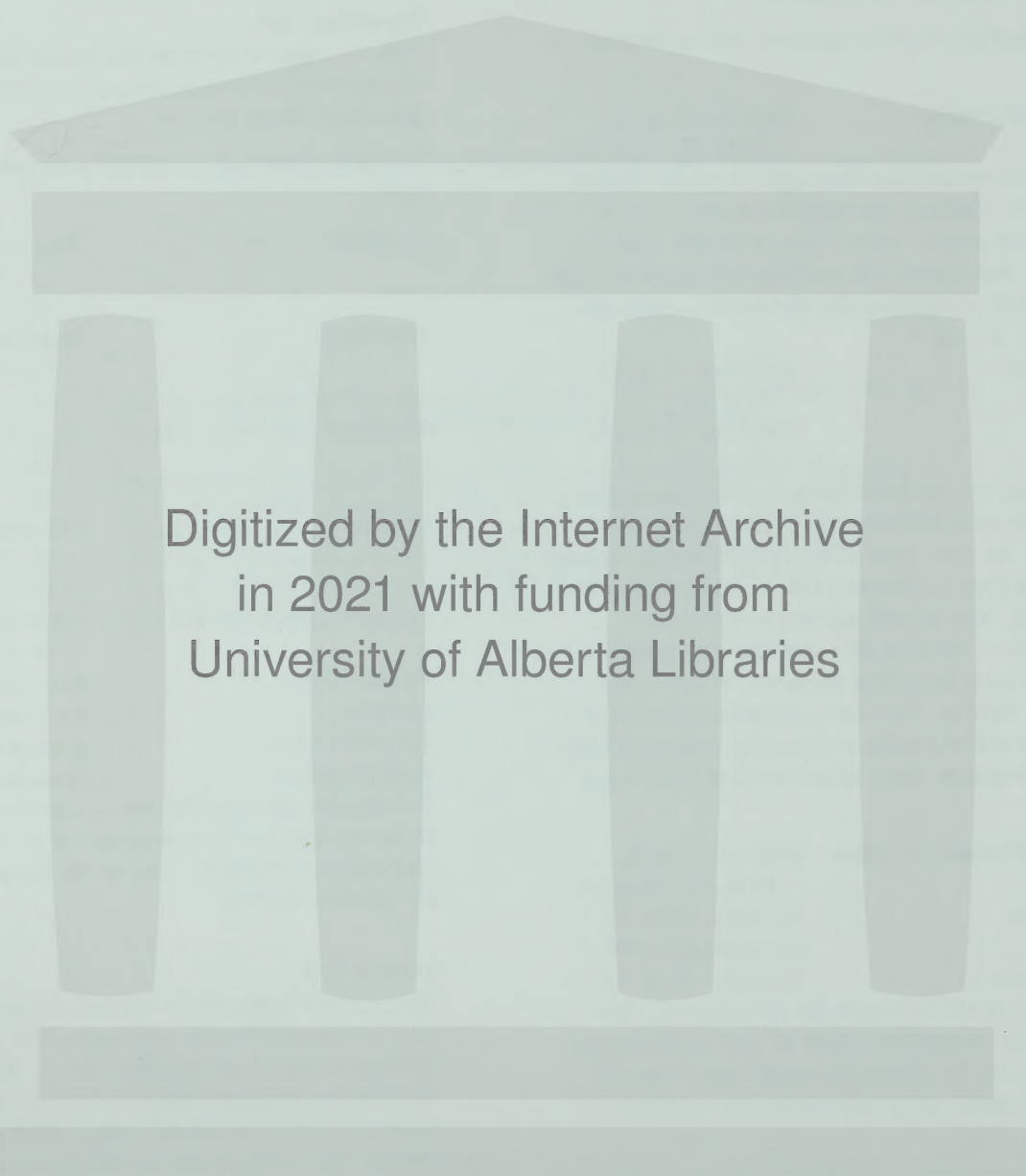
Addition	Exercises 7, 13, 16, 22, 29, 32, 37, 43, 47
Subtraction	Exercises 8, 11, 17, 23, 26, 30, 38, 41, 45
Multiplication	Exercises 9, 12, 15, 24, 28, 31, 39, 44, 46
Division	Exercises 10, 14, 18, 25, 27, 33, 40, 42, 48
Numeration/Decimals/Fractions	Exercises 1 to 6, 19 to 21, 34 to 36
Measurement	Exercises 49 to 60
Geometry	Exercises 61 to 72
Ratios/Percents	Exercises 73 to 78
Word Problems	Exercises 79 to 84

If a student has more than two errors for any topic, he or she may not have mastered it yet. Results of the year-end test should be kept in the student's file for the grade 7 teacher.

Answer Key

The tests are designed for students to show their answers on the right of the test page. This is to facilitate marking using the answer key. For exercises involving calculations, have the student's do their work at the end of the test or on another page. Instruct students to transfer their final answers to the spaces at the right.

To mark a test, place the student's test beside the appropriate answer key so that the student's responses align with the answers shown on the key. Compare each student response with the answer. Assign a mark to each correct response. Use the conversion chart to convert the student's total marks out of the total possible marks to a percent.



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CONVERSION CHART

MARK

MARK

OUT OF

OUT OF

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42				
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8	13	25	38	50	63	75	88	100																																			8			
9	11	22	33	44	56	67	78	89	100																																		9			
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14	7	14	21	29	36	43	50	57	64	71	79	86	93	100																													14			
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16	6	13	19	25	31	38	44	50	56	63	69	75	81	88	94	100																											16			
17	6	12	18	24	29	35	41	47	53	59	65	71	76	82	88	94	100																										17			
18	6	11	17	22	28	33	39	44	50	56	61	67	72	78	83	89	94	100																										18		
19	5	11	16	21	26	32	37	42	47	53	58	63	68	74	79	84	89	95	100																									19		
20	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100																								20		
21	5	10	14	19	24	29	33	38	43	48	52	57	62	67	71	76	81	86	90	95	100																							21		
22	5	9	14	18	23	27	32	36	41	45	50	55	59	64	68	73	77	82	86	91	95	100																						22		
23	4	9	13	17	22	26	30	35	39	43	48	52	57	61	65	70	74	78	83	87	91	96	100																					23		
24	4	8	13	17	21	25	29	33	38	42	46	50	54	58	63	67	71	75	79	83	88	92	96	100																				24		
25	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96	100																			25		
26	4	8	12	15	19	23	27	31	35	38	42	46	50	54	58	62	65	69	73	77	81	85	88	92	96	100																		26		
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30	3	7	10	13	17	20	23	27	30	33	37	40	43	47	50	53	57	60	63	67	70	73	77	80	83	87	90	93	97	100														30		
33	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	52	55	58	61	64	67	70	73	76	79	82	85	88	91	94	97	100											33		
36	3	6	8	11	14	17	19	22	25	28	31	33	36	39	42	44	47	50	53	56	58	61	64	67	69	72	75	78	81	83	86	89	92	94	97	100									36	
39	3	5	8	10	13	15	18	21	23	26	28	31	33	36	38	41	44	46	49	51	54	56	59	62	64	67	69	72	74	77	79	82	85	87	90	92	95	97	100						39	
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45	2	4	7	9	11	13	16	18	20	22	24	27	29	31	33	36	38	40	42	44	47	49	51	53	56	58	60	62	64	67	69	71	73	76	78	80	82	84	87	89	91	93				45
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75	1	3	4	5	7	8	9	11	12	13	15	16	17	19	20	21	23	24	25	27	28	29	31	32	33	35	36	37	39	40	41	43	44	45	47	48	49	51	52	53	55	56			75	
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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41			42		

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43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84						
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90	92	94	96	98	100																																							48			
84	86	88	90	92	94	96	98	100																																				51			
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57	59	60	61	63	64	65	67	68	69	71	72	73	75	76	77	79	80	81	83	84	85	87	88	89	91	92	93	95	96	97	99	100													75		
51	52	54	55	56	57	58	59	60	61	62	63	64	65	67	68	69	70	71	73	74	75	76	77	79	80	81	82	83	85	86	87	88	89	90	92	93	94	95	96	98	99	100					84

PRETEST

1. c
2. b
3. a
4. c
5. b
6. c
7. d
8. a
9. b
10. d
11. c
12. a
13. d
14. c
15. b
16. d
17. a
18. b
19. c
20. d
21. d
22. c
23. b
24. b
25. a
26. b
27. b
28. d

PRETEST

29. c
30. b
31. c
32. d
33. a
34. c
35. a
36. d
37. d
38. b
39. c
40. d
41. a
42. b
43. a
44. c
45. d
46. a
47. d
48. a
49. c
50. c

PRETEST

51. b
52. b
53. a
54. d
55. b
56. a
57. c
58. b
59. c
60. c
61. d
62. a
63. d
64. b
65. a
66. c
67. d
68. c
69. a
70. c
71. b
72. a
73. a
74. b
75. d

UNIT 1 TEST A

1. 6 millions (6)
2. 6 thousandths (12)
3. 6 ten thousands (4)
4. 6 hundredths (12)
5. 7 000 000 + (6)
500 000 +
80
6. 300 000 + (4)
3000 +
300
7. 31 312 (4)
8. 8 506 001 (6)
9. 234 000 (4)
10. 1.022 (12)
11. six (12)
hundredths
12. ten and (12)
one hundred
three
thousandths
13. < (8)
14. < (8)
15. 74 190 001 (8)
7 498 010
7 448 110
794 800
16. 510 000 (10)
17. 98 000 000 (10)
18. 180 000 000 (6)

UNIT 1 TEST B

1. b (6)
2. c (6)
3. d (6)
4. d (12)
5. a (12)
6. b (8)
7. d (6)
8. b (8)
9. d (6)
10. a (10)
11. c (12)
12. c (8)
13. c (6)
14. c (8)
15. a (6)
16. d (10)
17. a (6)
18. a (12)
19. a (8)
20. b (8)
21. b (10)

UNIT 2 TEST A

1. 17 (16)
2. 22 (16)
3. 7811 (18)
4. 98 098 (18)
5. \$932.35 (18)
6. 40 772 (20)
7. 30 378 (20)
8. \$1219.49 (20)
9. 10 112 (24)
10. 1312 (26)
11. 6794 (26)
12. 2688 (28)
13. \$5872 (28)
14. \$690.85 (28)
15. 3050 (20)
16. 71 881 (28)
17. 46 700 (20)
18. 69 080 (26)

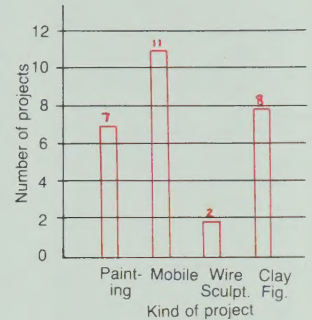
UNIT 2 TEST B

1. d (16)
2. b (24)
3. c (18)
4. d (26)
5. c (20)
6. d (28)
7. b (16)
8. c (24)
9. d (26)
10. a (18)
11. c (18)
12. d (28)
13. b (26)
14. a (16)
15. a (24)
16. b (18)
17. a (28)
18. b (18)
19. a (18)
20. c (28)
21. c (27)
22. d (18)
23. a (20)
24. b (27)

UNIT 3 TEST A

1. 28 (36)
2. See (40)
3. below. (38)
4. See at right. (46)
5. See at right. (44)
6. See at right. (44)
7. (5, 1) (42)
8. G (42)

2.

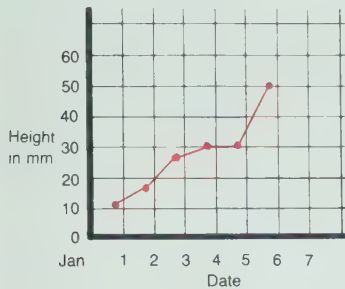


3. Answers will vary. Sample given.

Number of Students	
Grade	
First	⊗ ⊗ ⊗ ⊗ ⊗
Second	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗
Third	⊗ ⊗ ⊗ ⊗ ⊗ ⊗
Fourth	⊗ ⊗ ⊗ ⊗ ⊗
Fifth	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗
Sixth	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗
Every ⊗ represents 5 students.	

UNIT 3 TEST A

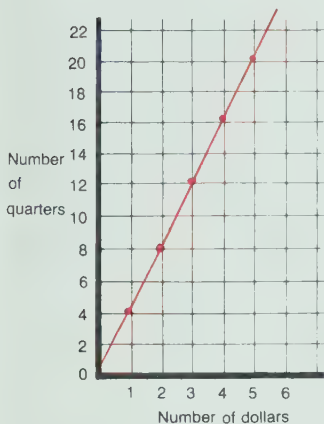
4.



5.

Number of dollars	Number of quarters	Ordered pair
1	4	(1, 4)
2	8	(2, 8)
3	12	(3, 12)
4	16	(4, 16)
5	20	(5, 20)

6.



UNIT 3 TEST B

1. c (36)
2. b (36)
3. b (36)
4. c (38)
5. c (38)
6. a (38)
7. d (40)
8. d (40)
9. b (40)
10. a (46)
11. d (46)
12. a (46)
13. d (44)
14. d (44)
15. b (44)
16. b (44)
17. c (42)
18. c (44)
19. b (42)
20. a (42)
21. a (44)

UNIT 4 TEST A

1. 31 368 (52)
2. 155 400 (54)
3. 47 112 (56)
4. 454 251 (58)
5. 94 136 (56)
6. 97 (64)
7. 24 017 R1 (66)
8. 846 (70)
9. 215 R62 (74)
10. 257 R20 (68)
11. 720 R20 (72)
12. 93 (67)
13. \$207 (67)
14. 14 375 (58)
15. 127, 5 (68)

UNIT 4 TEST B

1. b (52)
2. a (64)
3. c (54)
4. d (68)
5. b (56)
6. d (70)
7. a (58)
8. b (74)
9. d (64)
10. c (52)
11. b (68)
12. d (54)
13. a (64)
14. a (52)
15. d (68)
16. b (54)
17. c (56)
18. b (74)
19. a (70)
20. b (58)
21. d (56)
22. a (74)
23. c (70)
24. d (58)
25. c (67)
26. d (52)
27. c (56)
28. b (56)
29. a (67)
30. c (68)
31. b (70)
32. a (67)
33. c (64)

UNIT 5 TEST A

1. 5.09 (82)
2. 0.107 (84)
3. 0.0032 (84)
4. one and one (84)
ten-thousandth
5. four hundred (84)
eighteen
thousandths
6. = (86)
7. < (86)
8. > (86)
9. = (86)
10. 1.1011 (88)
1.101
1.1
1.011
11. 80 (98)
12. 2.7 (98)
13. 0.137 (98)
14. 4.3410 (90)
15. 14.5917 (90)
16. 0.802 (94)
17. 4.3445 (94)
18. \$ 11.35 (92)
19. 9.9904 (92)
20. 0.56 (96)

UNIT 5 TEST B

1. a (82)
2. b (82)
3. c (86)
4. a (86)
5. c (88)
6. c (98)
7. a (82)
8. d (86)
9. b (88)
10. c (82)
11. d (86)
12. d (98)
13. b (82)
14. b (82)
15. a (86)
16. c (86)
17. b (88)
18. a (98)
19. a (90)
20. d (94)
21. b (92)
22. c (96)
23. c (94)
24. c (92)
25. c (90)
26. d (96)
27. b (96)
28. a (94)
29. b (90)
30. a (92)

UNIT 6 TEST A

1. cm (106)
2. dm (106)
3. m (106)
4. 20 cm (108)
5. 18 m (110)
6. 56 cm (110)
7. 14 cm² (112)
8. 15 dm² (118)
9. 48 m² (114)
10. 962 mm² (116)
11. 13 cm³ (122)
12. 64 m³ (126)
13. 1300 cm³ (126)
14. 432 dm² (114)
15. 1200 cm³ (126)

UNIT 6 TEST B

1. a (106)
2. c (108)
3. d (112)
4. a (122)
5. b (110)
6. d (114)
7. b (106)
8. c (116)
9. c (124)
10. d (118)
11. c (106)
12. d (108)
13. d (112)
14. c (122)
15. c (110)
16. b (114)
17. d (124)
18. a (116)
19. a (108)
20. d (118)
21. b (110)
22. b (112)
23. a (122)
24. a (114)
25. b (116)
26. a (124)
27. a (118)
28. c (110)
29. d (114)
30. b (126)

UNIT 7 TEST A

1. 17.46 (134)
2. \$87.12 (134)
3. 111.777 (134)
4. 19.38 (138)
5. 0.758 (140)
6. 4.8238 (140)
7. 0.24 (142)
8. 0.0936 (142)
9. 34.9 (138)
10. 61.7 (140)
11. 12.3 (146)
12. 1.125 (146)
13. 5.08 (148)
14. \$0.60 (148)
15. 2.74 (148)
16. 0.42 (148)
17. \$0.32 (150)
18. 1.25 (150)
19. \$62.28 (134)
20. 5.07 km (146)

UNIT 7 TEST B

1. b (134)
2. a (138)
3. d (146)
4. c (148)
5. c (140)
6. d (142)
7. c (134)
8. d (146)
9. c (138)
10. d (142)
11. b (134)
12. a (138)
13. c (148)
14. d (140)
15. b (142)
16. a (146)
17. c (148)
18. a (140)
19. d (144)
20. b (150)
21. b (144)
22. a (144)
23. c (150)
24. b (150)
25. a (138)
26. a (146)
27. c (148)
28. d (140)
29. b (146)
30. a (134)

UNIT 8 TEST A

1. metre (156)
2. millilitre (160)
3. kilogram (162)
4. millimetre (156)
5. 82.5 (156)
6. 4 (162)
7. 600 (156)
8. 500 (162)
9. 7500 (158)
10. 3000 (160)
11. 1.725 (160)
12. 82 (164)
13. 4500 (164)
14. 3.71 m (156)
15. 2.034 kg (162)
16. 450 mL (160)
17. 24 kg (166)
18. 1400 d (166)
19. -4°C (168)
20. 22:10:04 (170)


UNIT 8 TEST B

1. a (158)
2. c (160)
3. d (162)
4. c (160)
5. b (158)
6. d (162)
7. a (162)
8. a (158)
9. b (160)
10. d (156)
11. b (160)
12. c (162)
13. a (164)
14. b (160)
15. d (162)
16. c (156)
17. a (160)
18. d (156)
19. d (164)
20. b (162)
21. a (164)
22. d (156)

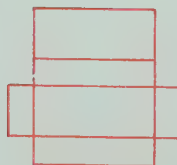
UNIT 8 TEST B

23. d (160)
24. c (162)
25. b (160)
26. b (162)
27. a (156)
28. d (162)
29. c (156)
30. b (160)
31. c (166)
32. c (168)
33. a (170)
34. d (166)
35. c (170)
36. a (168)
37. a (170)
38. b (166)
39. d (168)

UNIT 9 TEST A

1. $\overleftrightarrow{AB}, \overleftrightarrow{BC}, \text{ or } \overleftrightarrow{CD}$ (174)
2. $\overleftrightarrow{AB}, \overleftrightarrow{BC}, \text{ or } \overleftrightarrow{CD}$ (174)
3. $\overleftrightarrow{BA}, \overleftrightarrow{CD}, \overleftrightarrow{BC}, \text{ or } \overleftrightarrow{CB}$ (174)
4. $\overleftrightarrow{AB}, \overleftrightarrow{CD}$ (174)
5. $\overleftrightarrow{AB}, \overleftrightarrow{BC}, \text{ or } \overleftrightarrow{CD}, \overleftrightarrow{BA}$ (174)
6. 32° , acute (176)
7. 90° , right (176)
8.  (176)
9. 4 (178)
10. 4 (178)
11. 2 (178)
12. c (180)
13. J (182)
14. \overleftrightarrow{LK} or \overleftrightarrow{KM} (182)
15. \overleftrightarrow{KM} (182)
16. a, e (184)
17. a, d or e, d (186)
18. a, b, d, e (178)
19. 4.5 cm (188)
20. See below. (188)
21. 8 (192)
22. 12 (192)
23. a rectangle (192)
24. See below. (192)
25. rectangular (192)
26. prism
20. drawing of a rectangle 5cm by 2cm

24.



UNIT 9 TEST B

1. d (174)
2. d (174)
3. d (176)
4. b (174)
5. b (176)
6. c (174)
7. a (176)
8. c (174)
9. a (174)
10. b (178)
11. c (178)
12. d (182)
13. a (182)
14. b (182)
15. c (184)
16. c (186)
17. d (178)
18. a (178)
19. b (184)
20. c (178)
21. a (186)
22. d (184)
23. a (186)
24. a (178)
25. b (188)
26. d (188)
27. b (188)
28. d (192)
29. c (192)
30. d (192)
31. c (192)
32. c (192)
33. b (192)
34. a (192)
35. b (192)
36. b (192)

UNIT 10 TEST A

1. 8 (198)
2. $\frac{3}{8}$ (198)
3. $\frac{1}{6}, \frac{2}{12}$ (200)
4. $\frac{2}{6}, \frac{3}{9}, \frac{4}{12}, \dots$ (200)
5. $\frac{3}{4}$ (202)
6. $\frac{1}{3}$ (202)
7. $\frac{5}{6}$ (202)
8. yes (204)
9. no (204)
10. 3 (204)
11. $\frac{14}{8}$ (204)
12. $\frac{8}{4}$ (206)
13. $\frac{15}{8}$ (206)
14. $\frac{10}{3}$ (206)
15. $1\frac{3}{10}$ (208)
16. 5 (208)
17. $\frac{3}{15}, \frac{10}{15}$ (210)
18. $\frac{15}{12}, \frac{14}{12}$ (210)
19. < (212)
20. > (212)

UNIT 10 TEST B

1. b (198)
2. c (198)
3. d (200)
4. d (200)
5. c (202)
6. c (198)
7. b (198)
8. b (198)
9. b (200)
10. b (200)
11. c (202)
12. a (198)
13. b (200)
14. a (200)
15. a (202)
16. d (204)
17. b (204)
18. c (204)
19. c (204)
20. a (204)
21. a (204)
22. a (206)
23. c (206)
24. d (208)
25. d (206)
26. d (206)
27. d (208)
28. a (206)
29. c (208)
30. a (206)
31. c (210)
32. d (212)
33. b (212)
34. c (210)
35. a (210)
36. d (212)

UNIT 11 TEST A

1. $\frac{5}{7}$ (216)
2. $\frac{1}{2}$ (216)
3. $\frac{11}{15}$ (218)
4. $3\frac{13}{20}$ (218)
5. $1\frac{1}{2}$ (220)
6. $3\frac{1}{6}$ (220)
7. $\frac{1}{7}$ (216)
8. $1\frac{2}{3}$ (216)
9. $\frac{1}{14}$ (222)
10. $\frac{1}{6}$ (222)
11. $\frac{7}{12}$ (224)
12. $7\frac{1}{9}$ (224)
13. $\frac{1}{2}$ (228)
14. $\frac{16}{35}$ (228)
15. $\frac{1}{4}$ (228)
16. $\frac{4}{21}$ (228)
17. $10\frac{1}{2}$ (230)
18. $\frac{6}{7}$ (230)
19. $\frac{9}{7}$ (233)
20. $\frac{5}{6}$ (233)
21. $\frac{5}{9}$ (233)
22. $\frac{1}{8}$ (233)
23. $\frac{1}{4}$ (234)
24. 12 (234)
25. $1\frac{1}{3}$ (234)
26. 8 (234)
27. $\frac{1}{8}$ (234)
28. $\frac{5}{8}$ (234)
29. 0.33 (238)
30. 0.8 (238)
31. 0.38 (238)
32. 0.7 (238)
33. 0.78 (238)

UNIT 11 TEST B

1. c (216)
2. c (216)
3. c (228)
4. a (218)
5. d (222)
6. b (230)
7. b (216)
8. a (216)
9. d (228)
10. c (216)
11. d (228)
12. a (224)
13. a (216)
14. a (216)
15. c (230)
16. d (222)
17. d (218)
18. c (228)
19. d (220)
20. d (224)
21. b (230)
22. a (222)
23. a (218)
24. a (228)
25. b (234)
26. b (220)
27. c (234)
28. a (224)
29. b (228)
30. c (234)
31. b (233)
32. d (233)
33. b (233)
34. d (238)
35. b (238)
36. c (238)

UNIT 12 TEST A

1. 3:4 (246)
2. 3:7 (246)
3. 4:7 (246)
4. $\frac{2}{10}, \frac{3}{15}, \dots$ (248)
5. 10:12, 15:18, ... (248)
6. $\frac{31}{5}$ (248)
7. $\frac{3}{5}$ (248)
8. 20 (250)
9. 1 (250)
10. 1:5 (250)
11. 18 (252)
12. 12 (252)
13. 10 (252)
14. 18 (250)
15. 32 (250)
16. 4 (252)
17. 3.5 km/s (256)
18. 0.6 L/s (256)
19. \$0.48 / grapefruit (258)
20. 75¢ / bead (258)

UNIT 12 TEST B

1. a (246)
2. b (246)
3. c (246)
4. d (248)
5. b (248)
6. a (250)
7. d (256)
8. c (248)
9. d (248)
10. a (258)
11. b (250)
12. a (248)
13. c (256)
14. d (258)
15. c (250)
16. a (248)
17. b (256)
18. b (258)
19. b (252)
20. d (252)
21. c (252)

UNIT 13 TEST A

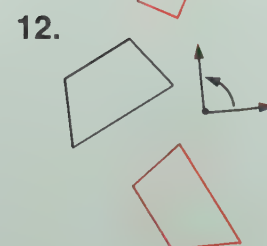
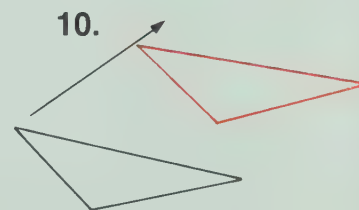
1. 79% (262)
2. 34% (262)
3. 7% (264)
4. 20% (264)
5. 8% (264)
6. 40% (264)
7. 60% (264)
8. 25% (264)
9. 0.09 (266)
10. 0.08 (266)
11. $\frac{6}{100}$ (266)
12. $\frac{2}{5}$ (266)
13. 160 (268)
14. 12.8 (268)
15. 45g (268)
16. \$10 (270)
17. \$540 (270)
18. \$1.20 (272)

UNIT 13 TEST B

1. d (262)
2. a (264)
3. b (264)
4. a (266)
5. d (266)
6. a (266)
7. c (268)
8. c (262)
9. c (266)
10. c (264)
11. d (266)
12. d (264)
13. d (266)
14. d (268)
15. b (266)
16. b (262)
17. a (268)
18. a (264)
19. c (266)
20. b (264)
21. a (266)
22. b (268)
23. b (270)
24. b (272)

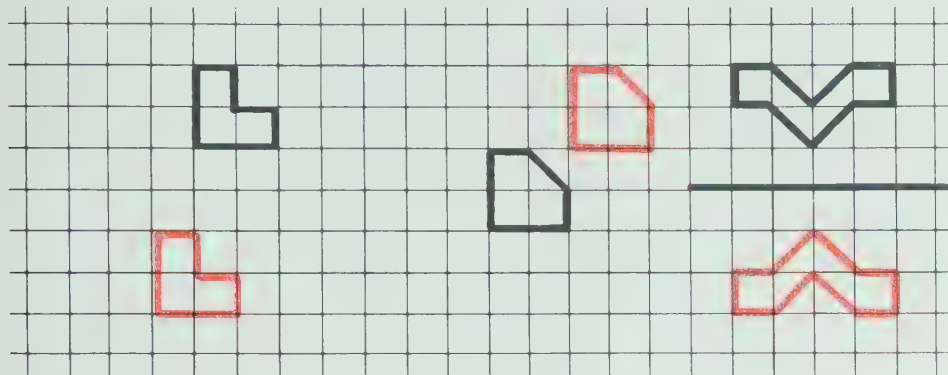
UNIT 14 TEST A

1. no (276)
2. yes (276)
3. (1R, 2D) (278)
4. yes (280)
5. yes (280)
6. yes (284)
7. no (284)
8. no (286)
9. yes (286)
10. } (276)
11. } See below. (280)
12. } (284)
13. } (278)
14. } See to the right. (278)
15. } (282)
16. } (288)
17. } (290)
18. $\triangle FDE$ (292)
19. $\triangle DBC$ (292)
20. $\triangle DFC$ (292)

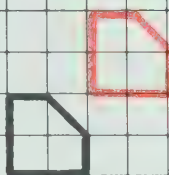


UNIT 14 TEST A

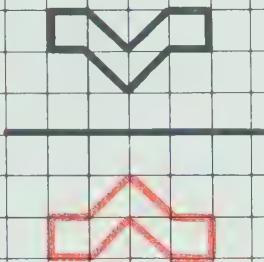
13.



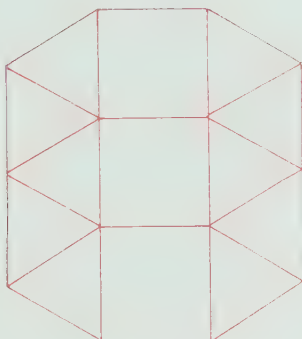
14.



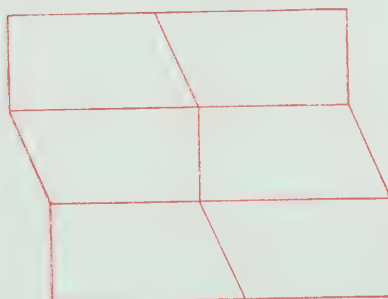
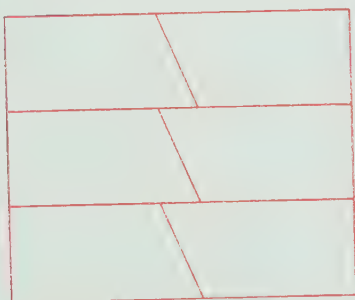
15.



16.



17. Answers will vary.
Examples given.



UNIT 14 TEST B

1. b (276)

2. b (280)

3. b (284)

4. d (278)

5. b (282)

6. c (284)

7. a (276)

8. c (280)

9. b (278)

10. d (282)

11. b (276)

12. a (280)

13. b (282)

14. a (284)

15. b (278)

16. d (286)

17. d (288)

18. b (292)

19. d (292)

20. b (292)

21. c (288)

22. a (286)

23. c (286)

24. a (288)

UNIT 15 TEST A

1. 4 (300)
2. 54 (300)
3. 14 (300)
4. 25 (300)
5. 1.2 (302)
6. 4.3 (302)
7. 3.12 (302)
8. 50.7 (302)
9. 2.7 (306)
10. 1101 (306)
11. 8 (306)
12. 6300 (308)
13. 9.5 (308)
14. 20.3 (308)
15. 23.3 (304)
16. 5.9 (304)
17. 1.11 (304)
18. 15.17 (310)
19. 8300 (311)
20. 0.04 (311)
21. 7.008 (311)
22. 160 (311)
23. 0.27 (311)
24. 7 (300)
25. 2.5 (306)

UNIT 15 TEST B

1. a (308)
2. a (311)
3. d (308)
4. c (306)
5. d (305)
6. a (311)
7. b (302)
8. a (308)
9. c (306)
10. a (305)
11. c (308)
12. c (305)
13. b (302)
14. a (308)
15. b (308)
16. d (304)
17. b (310)
18. d (310)
19. d (304)
20. b (310)
21. a (304)
22. c (300)
23. c (306)
24. d (306)

UNIT 16 TEST A

1. +3, +5 (316)
 2. -2, -4 (316)
 3. See below. (318)
 4. < (318)
 5. > (318)
 6. > (318)
 7. < (318)
 8. +6, +3, +1, 0,
-4, -5 (318)
 9. +9 (320)
 10. -5 (320)
 11. +2 (320)
 12. -4 (320)
 13. -2 (320)
 14. 0 (320)
 15. 10, fell (322)
 16. 20, fell (322)
 17. 5, rose (322)
 18. 18, fell (322)
 19. +4 (320)
 20. 11°C (322)
3. Number line
shows
-2, 0, +1, +3, +4.

UNIT 16 TEST B

1. c (316)
2. d (318)
3. c (318)
4. a (318)
5. b (318)
6. d (318)
7. b (316)
8. c (318)
9. b (316)
10. d (318)
11. a (318)
12. a (318)
13. a (320)
14. d (320)
15. b (320)
16. a (322)
17. c (322)
18. c (322)
19. d (320)
20. d (320)
21. b (320)

YEAR-END TEST

1. c
2. c
3. a
4. a
5. c
6. d
7. b
8. c
9. d
10. b
11. a
12. a
13. a
14. c
15. d
16. d
17. b
18. d
19. b
20. b
21. c
22. d
23. d
24. a
25. d
26. b
27. b
28. b

YEAR-END TEST

29. a
30. c
31. c
32. b
33. b
34. c
35. d
36. b
37. b
38. d
39. a
40. b
41. c
42. b
43. a
44. d
45. a
46. c
47. c
48. d
49. b
50. a
51. c
52. b
53. b
54. c
55. d
56. a

YEAR-END TEST

57. c
58. c
59. c
60. a
61. c
62. b
63. d
64. b
65. c
66. b
67. b
68. d
69. b
70. d
71. c
72. a
73. b
74. c
75. b
76. c
77. d
78. d
79. b
80. b
81. d
82. c
83. d
84. b

Choose the correct answer.

1. Which is the greatest?
 (a) 206 072 (b) 27 760 (c) 206 706 (d) 206 207
2. Which is a true statement?
 (a) $680\,732 < 608\,732$ (b) $608\,723 < 608\,732$
 (c) $608\,237 > 680\,732$ (d) $680\,723 > 680\,732$
3. $25\,200$ _____ $25\,098$
 (a) $>$ (b) $<$ (c) $=$ (d) $+$
4. Which shows 825 971 rounded to the nearest thousand?
 (a) 800 000 (b) 830 000 (c) 826 000 (d) 825 000
5. Which shows 647 431 rounded to the nearest ten thousand?
 (a) 600 000 (b) 650 000 (c) 647 000 (d) 640 000
6. Which shows 799 358 rounded to the nearest ten thousand?
 (a) 790 000 (b) 799 000 (c) 800 000 (d) 890 000
7.
$$\begin{array}{r} 3\,5\,3\,2 \\ +\,6\,8\,4 \\ \hline \end{array}$$
 (a) 3116 (b) 3216 (c) 4116 (d) 4216
8.
$$\begin{array}{r} 2\,4\,4\,8 \\ +\,2\,6\,3\,7 \\ \hline \end{array}$$
 (a) 5085 (b) 4075 (c) 4085 (d) 5075
9.
$$\begin{array}{r} 9\,4\,6\,7 \\ +\,8\,3\,5\,6 \\ \hline \end{array}$$
 (a) 17 713 (b) 17 823 (c) 1111 (d) 17 1813
10.
$$\begin{array}{r} 5\,6\,3\,2 \\ -\,5\,4\,8\,5 \\ \hline \end{array}$$
 (a) 11 117 (b) 157 (c) 257 (d) 147
11.
$$\begin{array}{r} 1\,5\,3\,5\,3 \\ -\,8\,4\,9\,6 \\ \hline \end{array}$$
 (a) 7957 (b) 23 849 (c) 6857 (d) 7967
12.
$$\begin{array}{r} 7\,2\,0\,0\,0 \\ -\,7\,5\,3\,6 \\ \hline \end{array}$$
 (a) 64 464 (b) 65 536 (c) 79 536 (d) 64 536
13.
$$\begin{array}{r} 9\,6 \\ \times 8\,3 \\ \hline \end{array}$$
 (a) 179 (b) 1056 (c) 7868 (d) 7968

- | | | | | | | |
|-----|--|---------------------|--------------|--------------|--------------|-----------|
| 14. | $\begin{array}{r} 49 \\ \times 60 \\ \hline \end{array}$ | (a) 109 | (b) 294 | (c) 2940 | (d) 2440 | 14. _____ |
| 15. | $\begin{array}{r} 517 \\ \times 68 \\ \hline \end{array}$ | (a) 7238 | (b) 35 156 | (c) 585 | (d) 34 706 | 15. _____ |
| 16. | $3 \overline{)762}$ | (a) 2286 | (b) 220 R2 | (c) 22 R2 | (d) 254 | 16. _____ |
| 17. | $8 \overline{)3972}$ | (a) 496 R4 | (b) 400 R72 | (c) 496 | (d) 466 R4 | 17. _____ |
| 18. | $54 \overline{)3402}$ | (a) 64 R46 | (b) 63 | (c) 61 R28 | (d) 73 | 18. _____ |
| 19. | Which is the greatest? | | | | | 19. _____ |
| | (a) 3.06 | (b) 3.5 | (c) 3.6 | (d) 3.05 | | 20. _____ |
| 20. | Which is the least? | | | | | 21. _____ |
| | (a) 2.7 | (b) 2.08 | (c) 2.708 | (d) 2.078 | | 22. _____ |
| 21. | Which is a true statement? | | | | | 23. _____ |
| | (a) 52.281 > 52.812 | (b) 52.281 < 52.182 | | | | 24. _____ |
| | (c) 52.821 < 52.812 | (d) 52.281 > 52.128 | | | | 25. _____ |
| 22. | $\begin{array}{r} 8.702 \\ + 3.381 \\ \hline \end{array}$ | (a) 12 083 | (b) 11 083 | (c) 12.083 | (d) 11.083 | 26. _____ |
| 23. | $\begin{array}{r} 91.7 \\ + 68.6 \\ \hline \end{array}$ | (a) 1603 | (b) 160.3 | (c) 16.03 | (d) 159.3 | 27. _____ |
| 24. | $\begin{array}{r} \$49.23 \\ 2.35 \\ + 867.26 \\ \hline \end{array}$ | (a) \$808.74 | (b) \$918.84 | (c) \$818.84 | (d) \$918.74 | 28. _____ |
| 25. | $\begin{array}{r} \$100.00 \\ - 82.65 \\ \hline \end{array}$ | (a) \$17.35 | (b) \$182.65 | (c) \$82.65 | (d) \$128.45 | |
| 26. | $\begin{array}{r} 33.3 \\ - 16.9 \\ \hline \end{array}$ | (a) 50.2 | (b) 16.4 | (c) 27.4 | (d) 17.4 | |
| 27. | $\begin{array}{r} 9.475 \\ - 6.537 \\ \hline \end{array}$ | (a) 16.012 | (b) 2.938 | (c) 3.948 | (d) 2.838 | |
| 28. | $\begin{array}{r} 3.475 \\ \times 4 \\ \hline \end{array}$ | (a) 13 900 | (b) 12 680 | (c) 12.680 | (d) 13.900 | |

29.
$$\begin{array}{r} 7.3 \\ \times 2.5 \\ \hline \end{array}$$
 (a) 182.5 (b) 4.11 (c) 18.25 (d) 18.15 29. _____
30.
$$\begin{array}{r} 0.28 \\ \times 0.6 \\ \hline \end{array}$$
 (a) 0.128 (b) 0.168 (c) 0.208 (d) 16.8 30. _____
31.
$$4 \overline{)9.6}$$
 (a) 24 (b) 21 R2 (c) 2.4 (d) 2.1 R2 31. _____
32.
$$9 \overline{)14.31}$$
 (a) 157 R8 (b) 159 (c) 1.58 (d) 1.59 32. _____
33.
$$18 \overline{)100.8}$$
 (a) 5.6 (b) 56 (c) 5.9 (d) 59 33. _____
34. $\frac{6}{8}$ _____ $\frac{3}{4}$
 (a) > (b) < (c) = (d) + 34. _____
35. Which is the missing term for $\frac{12}{18} = \frac{\blacksquare}{3}$?
 (a) 2 (b) 0 (c) 6 (d) 1 35. _____
36. Which is the missing term for $\frac{9}{15} = \frac{21}{\blacksquare}$?
 (a) 17 (b) 18 (c) 24 (d) 35 36. _____
37. $6\frac{3}{8} + 4\frac{5}{8}$
 (a) $10\frac{7}{8}$ (b) $10\frac{8}{8}$ (c) $10\frac{8}{16}$ (d) 11 37. _____
38. $7\frac{3}{9} + 4\frac{1}{9}$
 (a) $11\frac{4}{18}$ (b) $11\frac{4}{9}$ (c) $12\frac{4}{9}$ (d) $11\frac{3}{9}$ 38. _____
39. $9\frac{4}{5} + 2\frac{3}{5}$
 (a) $11\frac{7}{10}$ (b) $11\frac{7}{5}$ (c) $12\frac{2}{5}$ (d) $12\frac{4}{5}$ 39. _____
40. $12\frac{7}{9} - 7\frac{5}{9}$
 (a) $19\frac{12}{9}$ (b) $20\frac{3}{9}$ (c) $4\frac{2}{9}$ (d) $5\frac{2}{9}$ 40. _____
41. $5\frac{3}{5} - 4\frac{4}{5}$
 (a) $\frac{4}{5}$ (b) $1\frac{1}{5}$ (c) $1\frac{4}{5}$ (d) $10\frac{2}{5}$ 41. _____

42. $6\frac{1}{4} - 2\frac{3}{4}$

(a) $3\frac{3}{4}$

(b) $3\frac{2}{4}$

(c) 9

(d) $4\frac{2}{4}$

42. _____

43. _____

44. _____

43. 1.85 m = _____ mm

(a) 1850

(b) 185

(c) 0.0185

(d) 0.001 85

45. _____

46. _____

47. _____

44. 5 cm = _____ m

(a) 5000

(b) 500

(c) 0.05

(d) 0.005

48. _____

49. _____

50. _____

45. 2750 mL = _____ L

(a) 2 750 000

(b) 275 000

(c) 27.50

(d) 2.750

46. 0.3 L _____ mL

(a) 300

(b) 30

(c) 0.003

(d) 0.0003

47. 0.5 kg = _____ g

(a) 0.0005

(b) 0.005

(c) 50

(d) 500

48. 280 g = _____ kg

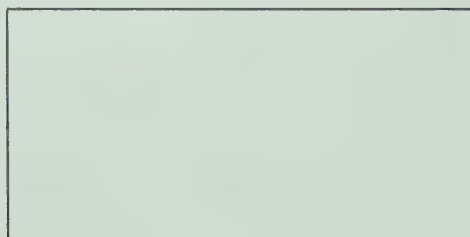
(a) 0.280

(b) 2.80

(c) 28 000

(d) 280 000

49. Use a centimetre ruler. Which is the perimeter of this rectangle?



(a) 9 cm

(b) 15 cm

(c) 18 cm

(d) 24 cm

50. Which is the area of the rectangle in exercise 49?

(a) 9 cm²

(b) 15 cm²

(c) 18 cm²

(d) 24 cm²

Each small cube in exercises 51 and 52 represents a cubic centimetre.

51. Which is the volume in cubic centimetres?

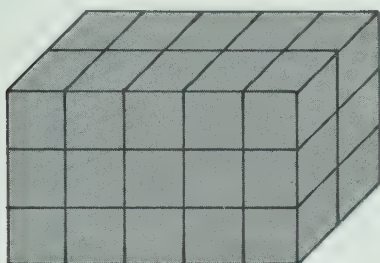
51. _____

52. _____

53. _____

54. _____

55. _____



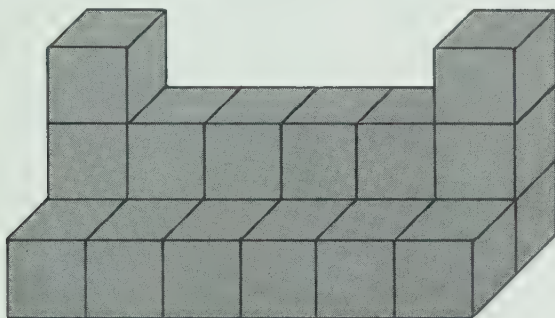
a 31

b 30

c 21

d 15

52. Which is the volume in cubic centimetres?



a 14

b 20

c 27

d 31

Which is the best estimate for each measurement?

53. the capacity of 930 cm³ of water

a 930 mL

b 9.3 mL

c 930 L

d 9.3 L

54. the mass of a friend

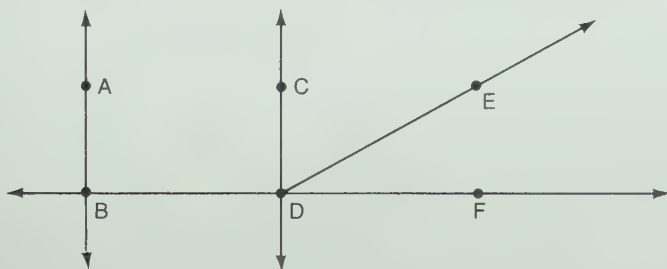
a 3.8 g

b 38 g

c 3.8 kg

d 38 kg

Use this picture for exercises 55 to 60.



55. Which is a line parallel to \overleftrightarrow{AB} ?

a BD

b CD

c DE

d DF

56. Which is a line perpendicular to \overleftrightarrow{AB} ?

- (a) BD (b) CD (c) DE (d) BC

56. _____

57. _____

58. _____

57. Which is not a line?

- (a) AB (b) CD (c) DE (d) DF

59. _____

60. _____

58. Which is an acute angle?

- (a) $\angle ABD$ (b) $\angle CDE$ (c) $\angle BDE$ (d) $\angle CDF$

61. _____

62. _____

63. _____

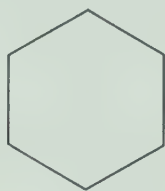
59. Which is an obtuse angle?

- (a) $\angle ABD$ (b) $\angle CDE$ (c) $\angle BDE$ (d) $\angle CDF$

60. Which is not a right angle?

- (a) $\angle ABD$ (b) $\angle BDC$ (c) $\angle BDF$ (d) $\angle CDF$

61. Which kind of polygon is this?



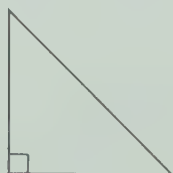
- (a) octagon (b) square (c) pentagon (d) hexagon

62. Which kind of quadrilateral is this?



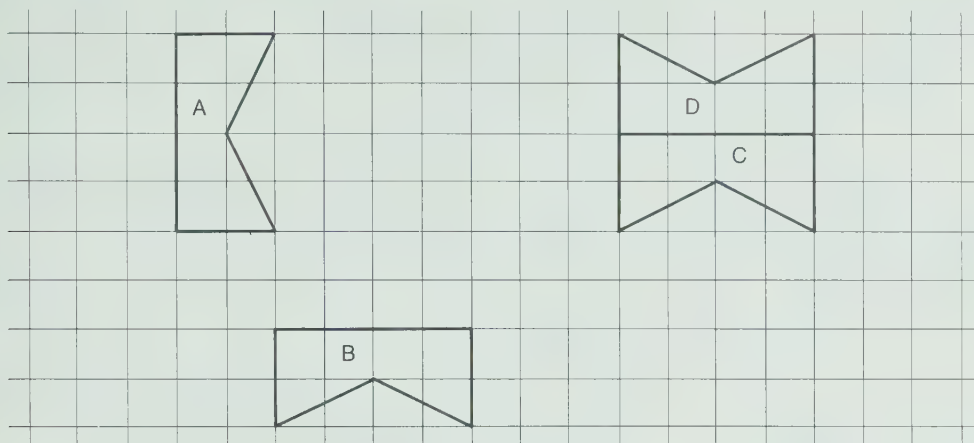
- (a) parallelogram (b) rectangle (c) square (d) kite

63. Which kind of triangle is this?



- (a) acute (b) obtuse (c) equilateral (d) right-angled

Use this picture for exercises 64 to 66.



64. _____

65. _____

66. _____

67. _____

68. _____

64. Which figure is the slide image of B?

- (a) A (b) C (c) D (d) none

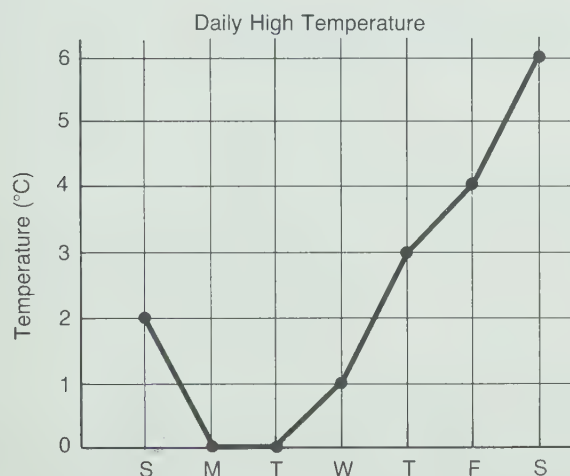
65. Which figure is the turn image of B?

- (a) A (b) C (c) D (d) none

66. Which figure is the flip image of C?

- (a) A (b) B (c) D (d) none

Use this line graph for exercises 67 to 69.



67. Which day had the highest temperature?

- (a) Monday (b) Wednesday (c) Friday (d) Saturday

68. Which days had the same temperature?

- (a) Sunday and Wednesday (b) Sunday and Thursday
(c) Monday and Tuesday (d) Friday and Saturday

69. Between which days did the temperature decrease? 69. _____
 Ⓐ Sunday and Monday Ⓑ Monday and Tuesday 70. _____
 Ⓒ Wednesday and Thursday Ⓓ Friday and Saturday 71. _____
72. _____
73. _____
70. Laura has to read a 1428 page book in 3 weeks. She plans to read the 74. _____
 same number of pages each week. How many pages should she read 75. _____
 each week to finish on time?
 Ⓐ 409 R1 Ⓑ 472 R4 Ⓒ 476 Ⓓ 4284
71. The mass of a truck is 1489 kg. Its load has a mass of 1967 kg.
 Which is the combined mass?
 Ⓐ 2 928 863 kg Ⓑ 3456 kg Ⓒ 2346 kg Ⓓ 478 kg
72. Every day Sarah does 75 sit-ups. How many sit-ups does she do in a
 year?
 Ⓐ 27 375 Ⓑ 3900 Ⓒ 900 Ⓓ 4 R68
73. Bill buys a shirt at \$18.95. How much change does he receive from
 \$20.00?
 Ⓐ \$1.05 Ⓑ \$8.95 Ⓒ \$10.05 Ⓓ \$38.95
74. Remo's Christmas list consists of presents for 6 people. He has saved
 \$51. Which is the average amount he can spend for each person?
 Ⓐ \$306 Ⓑ \$8.50 Ⓒ \$8 Ⓓ \$6.50
75. One airplane is flying at an altitude of 2760 m. Another is flying at an
 altitude of 1465 m. How much higher is the first airplane?
 Ⓐ 4225 Ⓑ 1395 Ⓒ 1305 Ⓓ 1295

What does each 6 mean?

1. 106 418 500

2. 19.376

3. 262 000

4. 0.56

1. _____

2. _____

3. _____

4. _____

5. _____

Write each in expanded form.

5. 7 500 080

6. 303 300

6. _____

Write each in standard form.

7. thirty-one thousand three hundred twelve

8. $8\,000\,000 + 500\,000 + 6000 + 1$

9. 2 hundred thousands 3 ten thousands 4 thousands

10. one and twenty-two thousandths

7. _____

8. _____

9. _____

10. _____

11. _____

Write the words.

11. 0.06

12. 10.103

12. _____

Use $<$, $>$, or $=$ to make true statements.

13. $122\,212 \bigcirc 1\,221\,212$

14. $35\,709\,000 \bigcirc 35\,780\,000$

13. _____

14. _____

15. _____

List from greatest to least.

15. 7 448 110, 794 800,
7 498 010, 74 190 001

16. _____

Round to the

16. nearest ten thousand. 512 888

17. nearest million. 97 732 000

17. _____

18. _____

Write the numeral in standard form.

18. The distance from the planet Venus to the sun is about one hundred eight million kilometres.

Choose the correct answer.

1. Which does the 1 mean in 618 497 000?

- (a) 1 hundred million (b) 1 ten million
(c) 1 hundred thousand (d) 1 ten thousand

2. Which is the expanded form for 609 040?

- (a) $60 + 90 + 40$ (b) $600\,000 + 900 + 40$
(c) $600\,000 + 9000 + 40$ (d) $60\,000 + 9000 + 40$

3. Which is the standard form for two million two hundred thousand twenty?

- (a) 2 220 020 (b) 2 000 220 (c) 2 220 000 (d) 2 200 020

4. Which are the words for 0.04?

- (a) four-tenths (b) forty-hundredths
(c) forty (d) four-hundredths

5. Which does the 1 mean in 20.012?

- (a) 1 hundredth (b) 1 hundred (c) 1 thousandth (d) 1 tenth

6. Which is a true statement?

- (a) $120\,120 < 120\,102$ (b) $120\,000 < 12\,000\,000$
(c) $12\,000\,000 < 120\,000$ (d) $102\,000 > 120\,000$

7. Which is the standard form for 7 ten thousands 7 thousands 7 tens?

- (a) 707 070 (b) 70 770 (c) 7770 (d) 77 070

8. Which list shows the numbers in order from greatest to least?

- | | | | | | | | |
|-----|---|-----|---|-----|---|-----|---|
| (a) | <div style="border: 1px solid black; padding: 2px; display: inline-block;">98 779
98 709
89 092
89 229
88 992</div> | (b) | <div style="border: 1px solid black; padding: 2px; display: inline-block;">98 779
98 709
89 229
89 092
88 992</div> | (c) | <div style="border: 1px solid black; padding: 2px; display: inline-block;">98 709
98 779
89 229
88 992
89 092</div> | (d) | <div style="border: 1px solid black; padding: 2px; display: inline-block;">88 992
89 092
89 229
98 709
98 779</div> |
|-----|---|-----|---|-----|---|-----|---|

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

9. Which is the expanded form for 2 370 000? 9. _____
- (a) $2 + 370 + 000$ (b) $2000 + 300 + 70$ 10. _____
- (c) $2\,000\,000 + 300\,000 + 70$ (d) $2\,000\,000 + 300\,000 + 70\,000$ 11. _____
10. Which is 679 049 979 rounded to the nearest ten million? 12. _____
- (a) 680 000 000 (b) 700 000 000 (c) 679 000 000 (d) 679 050 000 13. _____
11. Which are the words for 20.045? 14. _____
- (a) forty-five and two-hundredths 15. _____
- (b) twenty and forty-five hundredths
- (c) twenty and forty-five thousandths
- (d) two and forty-five thousandths
12. Which list shows the numbers in order from least to greatest?
- (a)

8 800 000 000
8 080 000 000
8 008 000 000
8 000 800 000

 (b)

8 800 000 000
8 008 000 000
8 000 800 000
8 080 000 000
- (c)

8 000 800 000
8 008 000 000
8 080 000 000
8 800 000 000

 (d)

8 008 000 000
8 080 000 000
8 000 800 000
8 800 000 000
13. Which does the 3 mean in 123 456 789 000?
- (a) 3 million (b) 3 hundred (c) 3 billion (d) 3 hundred million
14. Which is a true statement?
- (a) $27\,354\,000 > 260\,354\,000$ (b) $27\,354\,000 > 27\,534\,000$
- (c) $27\,354 < 260\,354\,000$ (d) $27\,354\,000 < 27\,345\,000$
15. Which is the standard form for $50\,000\,000 + 5000 + 50$?
- (a) 50 005 050 (b) 500 050 050 (c) 50 500 050 (d) 55 000 050

16. Which is 1 234 567 890 rounded to the nearest hundred thousand?

(a) 1 234 500 000

(b) 1 235 000 000

(c) 1 234 568 000

(d) 1 234 600 000

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

17. Which is the expanded form for 7 000 000 050?

(a) 7 000 000 000 + 50

(b) 7 000 000 + 50

(c) 70 000 000 + 50

(d) 7 000 000 000 + 5

18. Which are the words for 5.207?

(a) five and two hundred seven-thousandths

(b) five and twenty-seven thousandths

(c) five and two hundred seventy-thousandths

(d) seven hundred two and five-tenths

19. Which list shows the numbers in order from greatest to least?

(a)

355 535 000
355 335 000
353 353 000
353 335 000

(b)

353 335 000
353 353 000
355 335 000
355 535 000

(c)

355 535 000
355 335 000
353 335 000
353 353 000

(d)

353 335 000
355 535 000
353 353 000
355 535 000

20. Which is a true statement?

(a) 5 005 000 000 > 5 050 000 000

(b) 5 050 000 000 > 5 005 000 000

(c) 5 050 000 000 > 5 500 000 000

(d) 5 005 000 000 < 5 000 500 000

21. Which is 34 710 256 980 rounded to the nearest billion?

(a) 34 000 000 000

(b) 35 000 000 000

(c) 34 710 000 000

(d) 34 700 000 000

Add.

1. _____

1. $2 + 0 + 8 + 6 + 1$

2. $3 + 8 + 7 + 2 + 2$

2. _____

3.
$$\begin{array}{r} 2099 \\ 5712 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 79\,635 \\ 18\,463 \\ \hline \end{array}$$

5.
$$\begin{array}{r} \$473.08 \\ 459.27 \\ \hline \end{array}$$

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

Subtract.

9.
$$\begin{array}{r} 97\,418 \\ 87\,306 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 7141 \\ 5829 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 15\,453 \\ 8\,659 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 50\,000 \\ 47\,312 \\ \hline \end{array}$$

13.
$$\begin{array}{r} \$30\,600 \\ 24\,728 \\ \hline \end{array}$$

14.
$$\begin{array}{r} \$880.80 \\ 189.95 \\ \hline \end{array}$$

Find the result.

15. $877 + 13 + 155 + 2005$

16. $90\,900 - 19\,019$

Solve.

17. The soccer playoffs lasted for four days. There were 11 086 tickets sold the first day, 12 124 the second day, 10 575 the third day, and 12 915 the last day. How many tickets were sold in all?

18. The library owns 86 375 books. At the end of June, 17 295 books were checked out. How many books were not checked out?

Choose the correct answer.

1. $1 + 8 + 4 + 2 + 9$
 (a) 28 (b) 25 (c) 14 (d) 24
2.
$$\begin{array}{r} 79\ 898 \\ - 67\ 648 \\ \hline \end{array}$$
 (a) 147 546 (b) 12 250 (c) 12 258 (d) 12 150
3.
$$\begin{array}{r} 69\ 754 \\ + 38\ 513 \\ \hline \end{array}$$
 (a) 108 277 (b) 97 267 (c) 108 267 (d) 31 241
4.
$$\begin{array}{r} 36\ 922 \\ - 18\ 299 \\ \hline \end{array}$$
 (a) 22 777 (b) 18 733 (c) 17 623 (d) 18 623
5.
$$\begin{array}{r} 178 \\ 1007 \\ + 7081 \\ \hline \end{array}$$
 (a) 8166 (b) 8156 (c) 8266 (d) 9266
6.
$$\begin{array}{r} 604\ 040 \\ - 406\ 060 \\ \hline \end{array}$$
 (a) 198 980 (b) 202 020 (c) 108 080 (d) 197 980
7. $3 + 4 + 6 + 3 + 7$
 (a) 26 (b) 23 (c) 24 (d) 13
8.
$$\begin{array}{r} 5178 \\ - 2134 \\ \hline \end{array}$$
 (a) 7312 (b) 3144 (c) 3044 (d) 3244
9.
$$\begin{array}{r} \$11\ 342 \\ - \quad 6\ 148 \\ \hline \end{array}$$
 (a) \$17 490 (b) \$15 206 (c) \$5204 (d) \$5194
10.
$$\begin{array}{r} \$469.25 \\ + 330.85 \\ \hline \end{array}$$
 (a) \$800.10 (b) \$138.40 (c) \$799.00 (d) \$799.10
11.
$$\begin{array}{r} 11\ 280 \\ 20\ 182 \\ 10\ 028 \\ + 21\ 821 \\ \hline \end{array}$$
 (a) 62 101 (b) 63 211 (c) 63 311 (d) 73 311
12.
$$\begin{array}{r} 60\ 004 \\ - 2\ 875 \\ \hline \end{array}$$
 (a) 62 879 (b) 62 871 (c) 58 239 (d) 57 129
13.
$$\begin{array}{r} 63\ 751 \\ - 50\ 876 \\ \hline \end{array}$$
 (a) 114 627 (b) 12 875 (c) 13 125 (d) 10 875
14. $9 + 8 + 1 + 0 + 1$
 (a) 19 (b) 20 (c) 17 (d) 18

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____

15.
$$\begin{array}{r} 96785 \\ - 62320 \\ \hline \end{array}$$
 (a) 34 465 (b) 159 105 (c) 34 460 (d) 34 645

15. _____

16. _____

16.
$$\begin{array}{r} 15344 \\ 8742 \\ + \quad 938 \\ \hline \end{array}$$
 (a) 24 024 (b) 25 024 (c) 13 914 (d) 196 564

17. _____

18. _____

19. _____

17.
$$\begin{array}{r} 86002 \\ - 84765 \\ \hline \end{array}$$
 (a) 1237 (b) 170 767 (c) 2765 (d) 2237

20. _____

21. _____

18.
$$\begin{array}{r} 47547 \\ + 38396 \\ \hline \end{array}$$
 (a) 9151 (b) 85 943 (c) 75 833 (d) 86 943

22. _____

23. _____

24. _____

19. The sofa costs \$739.95. The matching chair costs \$184.95.
How much do the two pieces of furniture together cost?

(a) \$924.90 (b) \$555.00 (c) \$923.90 (d) \$813.80

20. 12 500 bottles are capped daily at one factory. At 10:00 a count showed 3125 had been capped. How many more must be capped before the end of the work day?

(a) 9475 (b) 15 625 (c) 9375 (d) 9425

21. In one day the *Edmonton Journal* sold 167 754 newspapers and the *Calgary Herald* sold 116 974. How many more newspapers did the *Journal* sell than the *Herald*?

(a) 284 728 (b) 51 220 (c) 50 780 (d) 51 880

22. In one day the *Vancouver Sun* sold 245 971 newspapers and the *Toronto Sun* sold 105 508. How many newspapers did they sell all together?

(a) 140 463 (b) 340 479 (c) 451 479 (d) 351 479

23. A store sold 3267 ten-speed bicycles, 2392 five-speed bicycles, and 2714 bicycles of other types in one year. How many bicycles were sold in all?

(a) 8373 (b) 5659 (c) 7263 (d) 3267

24. In a sporting goods store, a soccer ball costs \$27.95 and a basketball costs \$16.98. How much more is the soccer ball than the basketball?

(a) \$44.93 (b) \$10.97 (c) \$11.07 (d) \$11.03

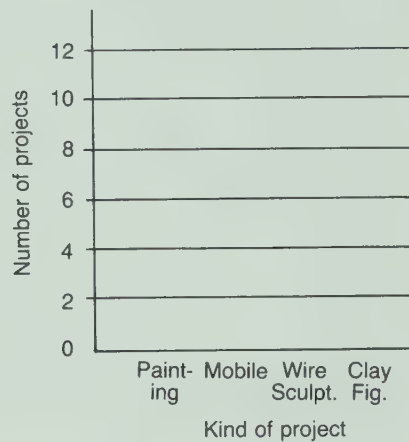
Complete the tally chart and answer.

1. For art class, students could turn in either a painting, a mobile, a wire sculpture, or a clay figure. How many projects were turned in?

Project Type	Tally	Number
Painting		
Mobile		
Wire Sculpture		
Clay Figure		


1. _____
 2. _____
 3. Show your work
 4. beside the
 5. exercises.
 6. _____

2. Draw a bar graph to show the information about the art projects in Exercise 1.



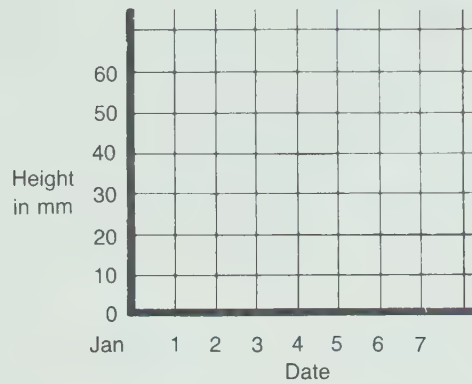
3. Draw a pictograph that shows the number of students.

Numbers of Students			
First Grade	25	Second Grade	35
Third Grade	30	Fourth Grade	25
Fifth Grade	35	Sixth Grade	45

Number of Students	
Grade	
First	
Second	
Third	
Fourth	
Fifth	
Sixth	
Every  represents ___ students.	

4. Draw a broken-line graph to show the height of the plant.

Date	Height
Jan 1	10 mm
2	15 mm
3	25 mm
4	30 mm
5	30 mm
6	50 mm

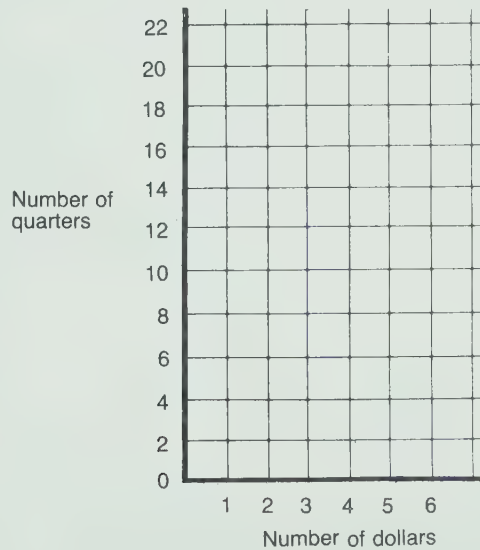


One dollar is worth 4 quarters.

5. Use this information to complete the table of ordered pairs.

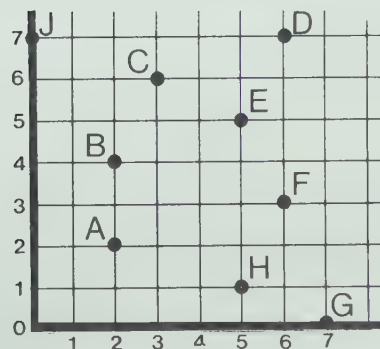
Number of dollars	Number of quarters	Ordered pair
1		
2		
3		
4		
5		

6. Complete the line graph to show this information.



For the following grid,

7. which ordered pair matches point H?
8. which point matches the ordered pair (7, 0)?



7. _____

8. _____

Choose the correct answer.

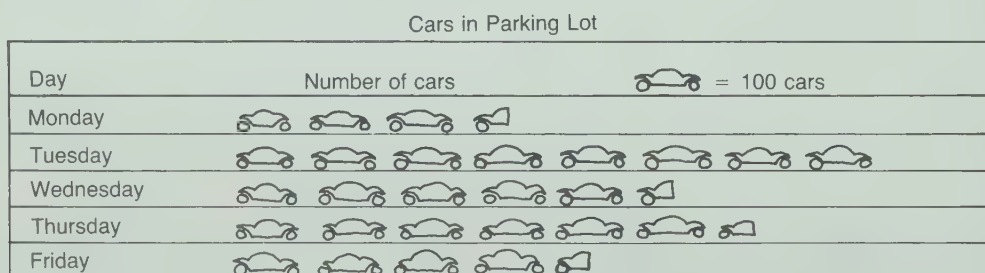
Use this table for exercises 1 to 3.

Airline	Tally	Number of airplanes
Air Canada		
Air France		
Quebecair		
Royal Air Maroc		
Finnair		
KLM		
Olympic		
Eastern Provincial		

1. _____
2. _____
3. _____
4. _____
5. _____

1. Which was the total number of airplanes counted?
 (a) 29 (b) 8 (c) 34 (d) 35
2. Which airline had twice as many airplanes land as Finnair?
 (a) Royal Air Maroc (b) Olympic
 (c) KLM (d) Eastern Provincial
3. How many more Air Canada planes landed than KLM planes?
 (a) 11 (b) 5 (c) 6 (d) 4

Use this graph for exercises 4 to 6.



4. Between 600 and 700 cars were in the parking lot on which day?
 (a) Tuesday (b) Wednesday (c) Thursday (d) Friday
5. How many more cars were in the lot on Thursday than on Monday?
 (a) 3 (b) 200 (c) 300 (d) 30

6. How many cars parked in the lot from Monday to Friday?

6. _____

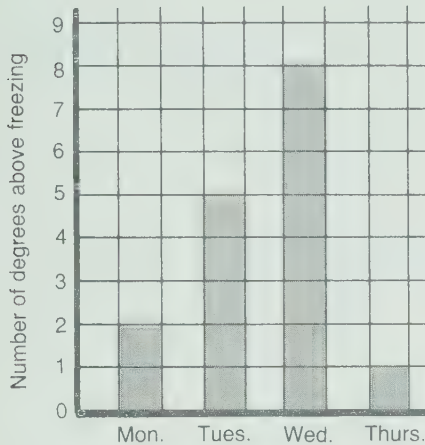
- (a) 2800 (b) 28 (c) 2600 (d) 280

7. _____

8. _____

9. _____

Use this graph for exercises 7 to 9.



7. Which day was the coldest?

- (a) Monday (b) Tuesday (c) Wednesday (d) Thursday

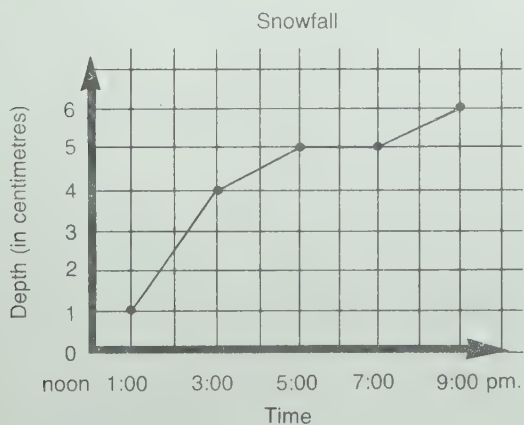
8. How much warmer was it on Wednesday than on Tuesday?

- (a) 8°C (b) 5°C (c) 13°C (d) 3°C

9. Which two days were closest in temperature?

- (a) Tuesday and Wednesday (b) Monday and Thursday
(c) Tuesday and Thursday (d) Monday and Wednesday

Use this graph for exercises 10 to 12.



10. Which statement is true?

- (a) The same amount of snow fell between 3:00 and 5:00 as between 7:00 and 9:00.
(b) More snow fell between 5:00 and 7:00 than between 3:00 and 5:00.
(c) No snow fell between 1:00 and 3:00.
(d) 2 cm of snow fell between 3:00 and 5:00.

10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

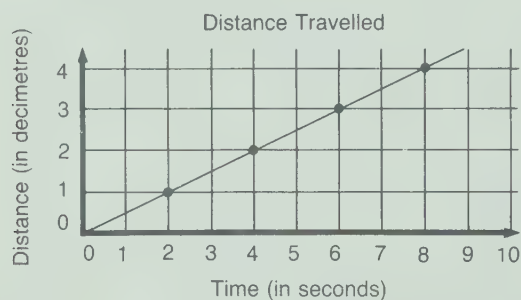
11. How much snow fell between 1:00 and 3:00?

- (a) 2 cm (b) 1 cm (c) 4 cm (d) 3 cm

12. How much snow fell between 5:00 and 9:00?

- (a) 1 cm (b) 4 cm (c) 5 cm (d) 6 cm

Use this graph for exercises 13 to 15.



13. How many decimetres does the model train travel in 8 s?

- (a) 1 (b) 8 (c) 2 (d) 4

14. How long does it take the model train to travel 3 dm?

- (a) $1\frac{1}{2}$ s (b) 4 s (c) 7 s (d) 6 s

15. How many decimetres does the train travel in 1 s?

- (a) 2 (b) $\frac{1}{2}$ (c) 1 (d) 0

16. Which shows a set of ordered pairs that can be made from the information that gasoline costs 40¢ a litre?

- (a) (0,40), (1,40), (2,40) (b) (1,40), (2,80), (3,120)
(c) (0,40), (1,80), (2,120) (d) (40), (80), (120)

17. Which ordered pair of numbers matches point D?

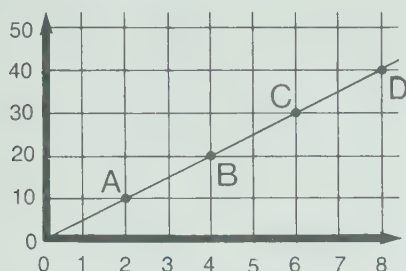
17. _____

18. _____

19. _____

20. _____

21. _____



Ⓐ (8,4)

Ⓑ (4,8)

Ⓒ (8,40)

Ⓓ (80,40)

18. Which shows a set of ordered pairs that can be made from the information that a car was travelling 50 km in one hour?

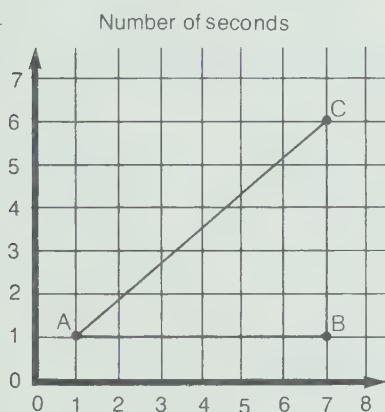
Ⓐ (0,50), (1,50), (2,50)

Ⓑ (0,50), (1,100), (2,150)

Ⓒ (1,50), (2,100), (3,150)

Ⓓ (50,1), (50,2), (50,3)

Use this graph for exercises 19 and 20.



19. Which ordered pair matches a point in side BC of triangle ABC?

Ⓐ (4,7)

Ⓑ (7,4)

Ⓒ (4,4)

Ⓓ (4,1)

20. Which ordered pair names a point on side AB of triangle ABC?

Ⓐ (3,1)

Ⓑ (2,2)

Ⓒ (7,6)

Ⓓ (1,7)

21. Which shows a set of ordered pairs that can be made from the information that for every 5 Canadian dollars, Mark received 4 U.S. dollars?

Ⓐ (5,4), (10,8), (15,12)

Ⓑ (54), (108), (1512)

Ⓒ $\frac{4}{5}, \frac{8}{10}, \frac{12}{15}$

Ⓓ (5,4), (10,4), (15,4)

Multiply.

1. _____

1.
$$\begin{array}{r} 7842 \\ \times 4 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 518 \\ \times 300 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 604 \\ \times 78 \\ \hline \end{array}$$

2. _____

3. _____

4. _____

4. 223×2037

5. 82×1148

5. _____

6. _____

7. _____

Divide.

6. $6 \overline{)582}$

7. $3 \overline{)72\,052} \text{ R}$

8. _____

9. _____

10. _____

8. $32 \overline{)27\,072}$

9. $248 \overline{)53\,382}$

11. _____

12. _____

13. _____

10. $7730 \div 30$

11. $20\,900 \div 29$

14. _____

15. _____

Find the average.

12. 72, 103, 69, 118, 117, 81, 95, 77, 105

Solve.

13. The glee club sold a total of \$1656 in magazine subscriptions during its fund drive. There are 8 members of the club. How much were their average sales?

14. Bonita and her friends planted a strawberry field. They planted 115 rows of strawberries with 125 plants in each row. How many strawberry plants were there?

15. There are 1275 squares of white fabric. The art room has 10 different colors of dye. Betta wants to have an equal number of squares of each color. How many should she put in each pot of dye? How many will be left white?

Choose the correct answer.

1.
$$\begin{array}{r} 12738 \\ \times \quad 7 \\ \hline \end{array}$$
 (a) 74 916 (b) 89 166 (c) 89 164 (d) 88 166
2.
$$6 \overline{)3690}$$
 (a) 615 (b) 6150 (c) 610 (d) 616
3.
$$\begin{array}{r} 6061 \\ \times 400 \\ \hline \end{array}$$
 (a) 24 244 (b) 242 440 (c) 2 424 400 (d) 2 404 400
4.
$$30 \overline{)2735}$$
 (a) 90 R5 (b) 910 R5 (c) 911 R2 (d) 91 R5
5.
$$\begin{array}{r} \$2463 \\ \times \quad 18 \\ \hline \end{array}$$
 (a) \$22 167 (b) \$44 334 (c) \$40 914 (d) \$24 624
6.
$$24 \overline{)7740}$$
 (a) 325 R20 (b) 3220 R12 (c) 301 R16 (d) 322 R12
7.
$$\begin{array}{r} 143 \\ \times 509 \\ \hline \end{array}$$
 (a) 72 787 (b) 51 467 (c) 8437 (d) 83 787
8.
$$501 \overline{)56614}$$
 (a) 101 R13 (b) 113 R1 (c) 113 R3 (d) 113
9.
$$3 \overline{)211401}$$
 (a) 7467 (b) 73 103 (c) 70 400 R1 (d) 70 467
10.
$$\begin{array}{r} 7061 \\ \times \quad 8 \\ \hline \end{array}$$
 (a) 7069 (b) 57 288 (c) 56 488 (d) 56 088
11.
$$40 \overline{)17240}$$
 (a) 4310 (b) 431 (c) 41 (d) 430
12.
$$\begin{array}{r} 5060 \\ \times \quad 60 \\ \hline \end{array}$$
 (a) 30 360 (b) 300 600 (c) 309 600 (d) 303 600
13.
$$9 \overline{)\$12069}$$
 (a) \$1341 (b) \$1007 R6 (c) \$1340 (d) \$13 410
14.
$$\begin{array}{r} 80922 \\ \times \quad 7 \\ \hline \end{array}$$
 (a) 566 454 (b) 62 454 (c) 560 344 (d) 561 454
15.
$$70 \overline{)21430}$$
 (a) 36 R10 (b) 300 R30 (c) 306 (d) 306 R10

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

16.
$$\begin{array}{r} 2000 \\ \times 500 \\ \hline \end{array}$$
 (a) 100 000 (b) 1 000 000 (c) 2500 (d) 10 000 000 16. _____
17.
$$\begin{array}{r} 2006 \\ \times 85 \\ \hline \end{array}$$
 (a) 16 030 (b) 170 080 (c) 170 510 (d) 26 078 17. _____
18.
$$248 \overline{)18\,600}$$
 (a) 70 R240 (b) 75 (c) 750 (d) 70 R124 18. _____
19.
$$34 \overline{)24\,174}$$
 (a) 711 (b) 710 (c) 702 R6 (d) 7110 19. _____
20.
$$\begin{array}{r} 602 \\ \times 513 \\ \hline \end{array}$$
 (a) 3006 (b) 308 826 (c) 5418 (d) 307 826 20. _____
21.
$$\begin{array}{r} 90\,806 \\ \times 31 \\ \hline \end{array}$$
 (a) 363 224 (b) 2 794 886 (c) 2 714 986 (d) 2 814 986 21. _____
22.
$$124 \overline{)\$8308}$$
 (a) \$67 (b) \$69 R32 (c) \$60 R8 (d) \$670 22. _____
23.
$$51 \overline{)25\,908}$$
 (a) 58 (b) 500 R8 (c) 508 (d) 5080 23. _____
24.
$$\begin{array}{r} 184 \\ \times 460 \\ \hline \end{array}$$
 (a) 880 (b) 49 440 (c) 8464 (d) 84 640 24. _____
25. Which is the average of these marks?
68, 76, 82, 91, 88
(a) 82 (b) 405 (c) 81 (d) 77 25. _____
26. A parking lot holds 1200 cars. If it was filled every day for 7 days, how many cars in all parked in the lot that week?
(a) 840 (b) 1207 (c) 7400 (d) 8400 26. _____
27. One section of the parking lot has 23 rows with 38 spaces in each row. How many cars can park in that section of the lot?
(a) 84 (b) 190 (c) 874 (d) 974 27. _____
28. 1075 of the parking lot customers pay a monthly fee of \$36. How much money is collected from these customers each month?
(a) \$9675 (b) \$38 700 (c) \$36 300 (d) \$38 900 28. _____

29. Which is the average of 8, 7, 11, 8, 9, 7, 9, 9, 8, 7, and 5? 29. _____
 (a) 8 (b) 9 (c) 88 (d) 11 30. _____
30. 320 Boy Scouts planted 14 400 trees. If each boy planted the same 31. _____
 number of trees, how many did each boy plant? 32. _____
 (a) 4 608 000 (b) 40 (c) 45 (d) 42 33. _____
31. 27 Girl Guides collected 918 bottles in a bottle drive.
 Which was the average number collected by each girl?
 (a) 24 786 (b) 34 (c) 30 R18 (d) 340
32. Which is the average of 614, 702, 486, 0, and 358?
 (a) 432 (b) 540 (c) 430 (d) 428
33. In the nine months that school was in session, the school bus travelled a
 total of 20 709 km. If it had travelled an equal number of kilometres each
 month, how many kilometres would it have travelled each month?
 (a) 2031 km (b) 231 km (c) 2301 km (d) 2311 km

Write the decimal for each of these.

1. _____

1. five and nine-hundredths

2. _____

2.

ones	tenths	hundredths	thousandths
0	1	0	7

3. _____

4. _____

5. _____

3. thirty-two ten-thousandths

6. _____

Give the words for each of these.

7. _____

4. 1.0001

5. 0.418

8. _____

Use $>$, $<$, or $=$ to make true statements.

9. _____

6. $5.4500 \ominus 5.45$ 7. $7.8778 \ominus 7.878$

10. _____

8. $3.9 \ominus 3.099$ 9. $36 \ominus 36.00$

List from greatest to least.

10. 1.011, 1.1, 1.101, 1.1011

11. _____

12. _____

Round to the nearest

13. _____

11. ten.

12. tenth.

13. thousandth.

14. _____

83.99

2.7072

0.1369

15. _____

Add.

16. _____

 14. $\begin{array}{r} 1.2441 \\ 3.0969 \\ \hline \end{array}$

 15. $\begin{array}{r} 12.2 \\ 2.3917 \\ \hline \end{array}$

17. _____

18. _____

19. _____

20. _____

Subtract.

 16. $\begin{array}{r} 4.413 \\ 3.611 \\ \hline \end{array}$

 17. $\begin{array}{r} 6.7 \\ 2.3555 \\ \hline \end{array}$

Find the result.

18. $\$6 + \$3.85 + \$1.50$ 19. $4.0004 + 1.99 + 4$ 20. $100 - 99.44$

Choose the correct answer.

1. Which is the decimal for seven and seven-hundredths?

- (a) 7.07 (b) 7.700 (c) 7.007 (d) 707

2. Which are the words for 18.0081?

- (a) eighteen and eighty-one hundredths
(b) eighteen and eighty-one ten-thousandths
(c) eighteen and eighty-one thousandths
(d) eighteen and eighty-one tenths

3. Which shows 5.2 as a three-place decimal?

- (a) 0.052 (b) 5.002 (c) 5.200 (d) 5.202

4. Which is a true statement?

- (a) $1.011 < 1.101$ (b) $1.011 < 1.0011$
(c) $1.11 < 1.1$ (d) $1.01 < 1.0011$

5. Which list shows the numbers in order from greatest to least?

- (a)

2.112
2.212
2.211
2.022

 (b)

2.212
2.211
2.022
2.112

 (c)

2.212
2.211
2.112
2.022

 (d)

2.211
2.112
2.212
2.022

6. Which shows 7.1818 rounded to the nearest hundredth?

- (a) 7.182 (b) 7.190 (c) 7.18 (d) 7.2

7. Which is the decimal for fifty-four ten-thousandths?

- (a) 0.0054 (b) 54 000 (c) 0.054 (d) 54.0000

8. Which shows 43.02 as a four-place decimal?

- (a) 0.4302 (b) 4.3020 (c) 43.2000 (d) 43.0200

9. Which list shows the numbers in order from least to greatest?

- (a)

3.505
3.5
0.35
0.035

 (b)

0.035
0.35
3.5
3.505

 (c)

0.35
0.035
3.5
3.505

 (d)

3.505
0.035
0.35
3.5

10. Which are the words for 0.504? 10. _____
 (a) five and four-hundredths (b) fifty-four hundredths 11. _____
 (c) five hundred four-thousandths (d) five hundred forty-thousandths 12. _____
13. _____
14. _____
11. Which is not a true statement? 15. _____
 (a) $9.8 = 9.800$ (b) $9.80 = 9.8000$ 16. _____
 (c) $9.800 = 9.80$ (d) $9.88 = 9.808$ 17. _____
18. _____
19. _____
12. Which shows 3.2189 rounded to the nearest thousandth?
 (a) 3.200 (b) 3.220 (c) 3.000 (d) 3.219
13. Which is the decimal for eight and six-thousandths?
 (a) 0.086 (b) 8.006 (c) 8.06 (d) 8.600
14. Which are the words for 30.03?
 (a) three and three-hundredths (b) thirty and three-hundredths
 (c) thirty and thirty-hundredths (d) thirty and three-thousandths
15. Which shows 5.0500 as a two-place decimal?
 (a) 5.05 (b) 5.50 (c) 505.00 (d) 50.50
16. Which is a true statement?
 (a) $3.03 < 3.030$ (b) $3.3 < 3.03$ (c) $3.03 > 3.003$ (d) $3.300 > 3.30$
17. Which list shows the numbers in order from greatest to least?
 (a)

0.0666
2.006
2.06
2.066
2.6

(b)

2.6
2.066
2.06
2.006
0.0666

 (c)

0.0666
2.066
2.6
2.06
2.006

 (d)

2.6
2.06
2.066
2.006
0.0666
18. Which shows 1.5432 rounded to the nearest tenth?
 (a) 1.5 (b) 1.6 (c) 1.54 (d) 15.4
19. $13.9 + 2.1927$
 (a) 16.0927 (b) 16.9027 (c) 15.0927 (d) 26.0927

20. $4.0891 - 1.25$

- (a) 3.8391 (b) 2.83 (c) 2.8309 (d) 2.8391

20. _____

21. $4 + 2.866 + 1.32$

- (a) 7.186 (b) 8.186 (c) 3.002 (d) 7.898

21. _____

22. _____

22. $\$17 - \15.45

- (a) \\$2.45 (b) \\$2.55 (c) \\$1.55 (d) \\$32.45

23. _____

24. _____

25. _____

23. $7.3168 - 4.59$

- (a) 2.72 (b) 7.2709 (c) 2.7268 (d) 3.8268

26. _____

27. _____

28. _____

24. $\$6.27 + \$10 + \$3.95$

- (a) \\$2022 (b) \\$10.32 (c) \\$20.22 (d) \\$19.22

29. _____

30. _____

25. $50.026 + 91.73 + 0.826$

- (a) 60.025 (b) 141.572 (c) 142.582 (d) 142.682

26. $7 - 1.05$

- (a) 8.05 (b) 6.05 (c) 6.95 (d) 5.95

27. $12 - 6.2345$

- (a) 18.2345 (b) 5.7655 (c) 6.2345 (d) 6.7655

28. $6.2 - 3.505$

- (a) 2.695 (b) 9.705 (c) 2.705 (d) 2.795

29. $2.638 + 1.49 + 7.5044 + 8.3$

- (a) 7.7914 (b) 19.9324 (c) 18.8224 (d) 199.324

30. $3.6 + 4 + 5.02 + 3$

- (a) 15.62 (b) 5.45 (c) 9.32 (d) 1562

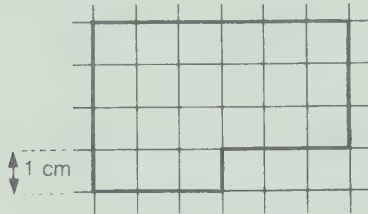
Choose the best unit to measure

1. the diameter of a baseball.
2. the length of a baseball bat.
3. the distance from third base to home plate on a baseball diamond.

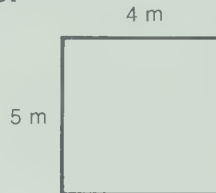
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

Find the perimeter of each.

4.



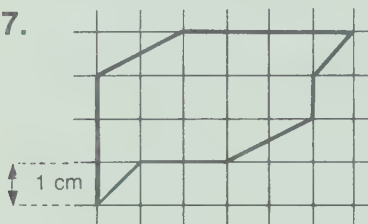
5.



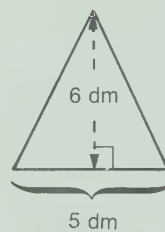
6. a square with sides 14 cm

Find the area of each.

7.



8.

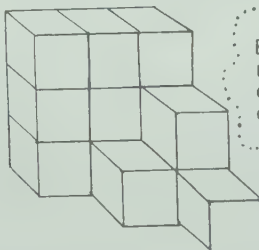


9. a rectangle 12 m by 4 m

10. a parallelogram with height 13 mm and base 74 mm

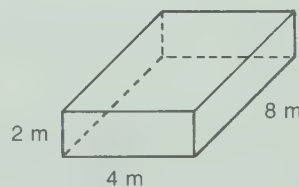
Find the volume of each.

11.



Each cube represents one cubic centimetre.

12.



13. a rectangular prism with base area 100 cm^2 and height 13 cm

Solve.

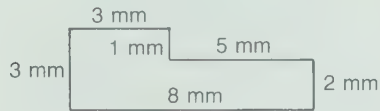
14. The rug that Harold bought is 24 dm by 18 dm. What is its area?
15. A coin box is 25 cm long, 12 cm wide, and 4 cm high. What is its volume?

Choose the correct answer.

1. Which is the best unit to measure the length of a corn kernel?

- (a) millimetre (b) centimetre (c) decimetre (d) kilometre

2. Which is the perimeter of this shape?



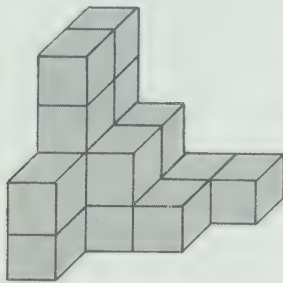
- (a) 25 mm (b) 24 mm (c) 22 mm (d) 19 mm

3. Which is the area of this shape?



- (a) 11 cm^2 (b) 19 cm^2 (c) 14 cm^2 (d) 15 cm^2

4. Each cube represents one cubic centimetre. Which is the volume of this shape?



- (a) 17 cm^3 (b) 26 cm^3 (c) 12 cm^3 (d) 11 cm^3

5. Which is the perimeter of a square with a side of 3 cm?

- (a) 9 cm (b) 12 cm (c) 3 cm (d) 27 cm^2

6. Which is the area of a square 25 cm on a side?

- (a) 50 cm^2 (b) 100 cm^2 (c) 505 cm^2 (d) 625 cm^2

-

- 50

13. Which is the area of this shape?

13. _____

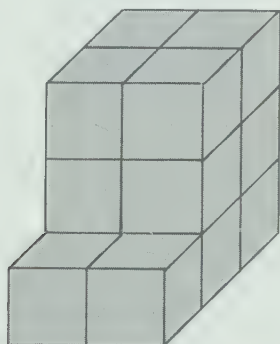
14. _____

15. _____



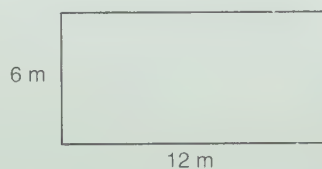
- Ⓐ 18 cm² Ⓑ 20 cm² Ⓒ 15 cm² Ⓓ 16 cm²

14. Each cube represents one cubic centimetre. Which is the volume of this shape?



- Ⓐ 19 cm³ Ⓑ 12 cm³ Ⓒ 14 cm³ Ⓓ 11 cm³

15. Which is the perimeter of this shape?



- Ⓐ 18 m Ⓑ 72 m Ⓒ 36 m Ⓓ 26 m

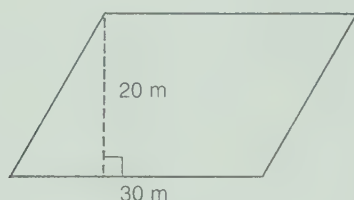
16. Which is the area of a rectangle with a base of 17 m and a height of 32 m?

- (a) 49 m^2 (b) 544 m^2 (c) 98 m^2 (d) 534 m^2

17. Which is the volume of a rectangular prism with a base of 112 cm by 40 cm and a height of 4 cm?

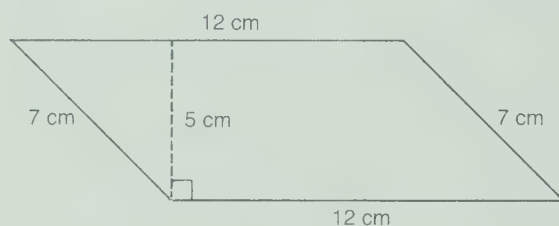
- (a) 156 cm^3 (b) 608 cm^3 (c) 1792 cm^3 (d) $17\,920 \text{ cm}^3$

18. Which is the area of this shape?



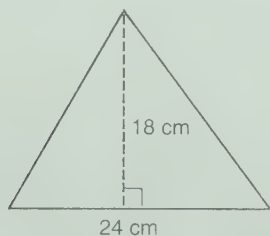
- (a) 600 m^2 (b) 60 m^2 (c) 50 m^2 (d) 6000 m^2

19. Which is the perimeter of this shape?



- (a) 38 cm (b) 60 cm (c) 43 cm (d) 36 cm

20. Which is the area of this shape?



- (a) 42 cm^2 (b) 432 cm^2 (c) 201 cm^2 (d) 216 cm^2

21. Which is the perimeter of a rectangle 13 dm by 53 dm?

- (a) 66 dm (b) 132 dm (c) 689 dm (d) 122 dm

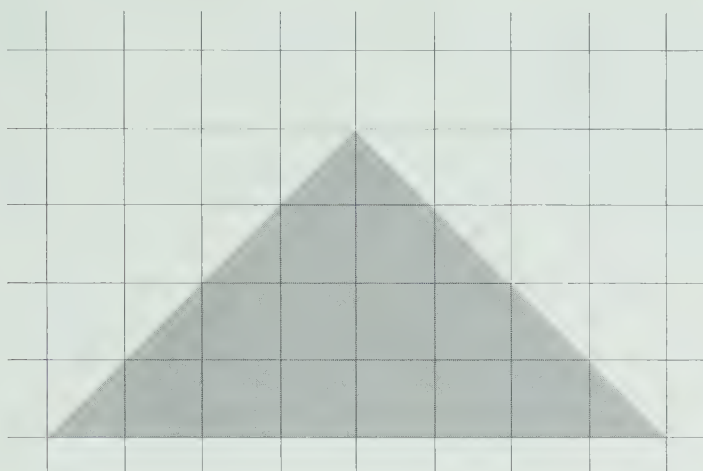
22. Which is the area of this shape?

22. _____

23. _____

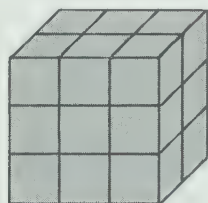
24. _____

25. _____



- (a) 20 cm^2 (b) 16 cm^2 (c) 14 cm^2 (d) 32 cm^2

23. Each cube represents one cubic centimetre. Which is the volume of this shape?



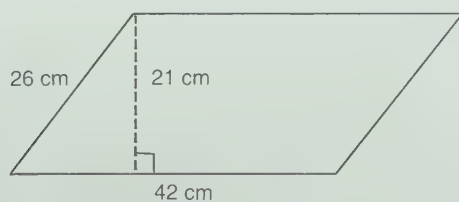
- (a) 18 cm^3 (b) 15 cm^3 (c) 21 cm^3 (d) 27 cm^3

24. Which is the area of this shape?



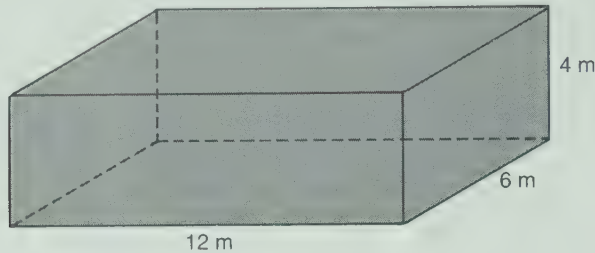
- (a) 480 mm^2 (b) 46 mm^2 (c) 380 mm^2 (d) 92 mm^2

25. Which is the area of this shape?



- (a) 1092 cm^2 (b) 882 cm^2 (c) 136 cm^2 (d) 63 cm^2

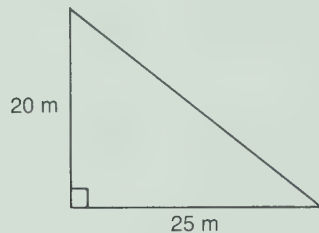
26. Which is the volume of this rectangular prism?



26. _____
27. _____
28. _____
29. _____
30. _____

- (a) 288 m^3 (b) 22 m^3 (c) 248 m^3 (d) 76 m^3

27. Which is the area of this shape?



- (a) 250 m^2 (b) 500 m^2 (c) 45 m^2 (d) 2500 m^2

28. Raphael walked along the entire edge of his Aunt Millie's cornfield. The cornfield has the shape of a rectangle with sides 25 m by 40 m. How far did he walk?

- (a) 90 m (b) 65 m (c) 130 m (d) 1000 m

29. Aunt Millie wanted to apply fertilizer to her cornfield. To buy the right amount, she must know the area of the field. Which is the area?

- (a) 65 m^2 (b) 130 m^2 (c) 100 m^2 (d) 1000 m^2

30. A storage locker is 80 cm long, 95 cm wide, and 160 cm high. Which is the volume of the locker?

- (a) $121\,600 \text{ cm}^3$ (b) $1\,216\,000 \text{ cm}^3$
(c) 335 cm^3 (d) $532\,000 \text{ cm}^3$

Multiply.

1.
$$\begin{array}{r} 1.94 \\ \times 9 \\ \hline \end{array}$$

2.
$$\begin{array}{r} \$3.63 \\ \times 24 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 2.109 \\ \times 53 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 5.7 \\ \times 3.4 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 7.58 \\ \times 0.1 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 2.71 \\ \times 1.78 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 0.4 \\ \times 0.6 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 0.18 \\ \times 0.52 \\ \hline \end{array}$$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

Round the product to the nearest tenth.

9.
$$\begin{array}{r} 8.3 \\ \times 4.2 \\ \hline \end{array}$$

10.
$$\begin{array}{r} 13.9 \\ \times 4.44 \\ \hline \end{array}$$

Divide.

11.
$$5 \overline{)61.5}$$

12.
$$8 \overline{)9}$$

13.
$$19 \overline{)96.52}$$

14.
$$45 \overline{)\$27}$$

15.
$$345 \overline{)945.3}$$

16.
$$75 \overline{)31.5}$$

Round the quotient to the nearest hundredth.

17.
$$25 \overline{)\$7.95}$$

18.
$$3 \overline{)3.76}$$

Solve.

19. Carpeting costs \$5.19 for a square metre. Tim buys a piece of carpeting that is 12 m². How much does he pay?

20. The total length of the course for the relay race is 15.21 km. Each team has 3 runners who run the same distance each. How far does each runner go?

Choose the correct answer.

- | | | | | | |
|-----|--|------------|-------------|------------|------------|
| 1. | $\begin{array}{r} 1.38 \\ \times 22 \\ \hline \end{array}$ | (a) 0.3036 | (b) 30.36 | (c) 3.036 | (d) 5.52 |
| 2. | $\begin{array}{r} 3.6 \\ \times 9.7 \\ \hline \end{array}$ | (a) 34.92 | (b) 349.2 | (c) 0.3492 | (d) 5.76 |
| 3. | $2 \overline{)83.8}$ | (a) 42.4 | (b) 42.9 | (c) 41.4 | (d) 41.9 |
| 4. | $24 \overline{)23.52}$ | (a) 0.88 | (b) 9.8 | (c) 0.98 | (d) 98 |
| 5. | $\begin{array}{r} 5.82 \\ \times 0.5 \\ \hline \end{array}$ | (a) 2.5 | (b) 2.901 | (c) 2.91 | (d) 0.291 |
| 6. | $\begin{array}{r} 0.40 \\ \times 0.09 \\ \hline \end{array}$ | (a) 0.360 | (b) 0.306 | (c) 0.0036 | (d) 0.036 |
| 7. | $\begin{array}{r} 3.765 \\ \times 4 \\ \hline \end{array}$ | (a) 12.765 | (b) 1.5060 | (c) 15.060 | (d) 12.840 |
| 8. | $6 \overline{)42.48}$ | (a) 7.8 | (b) 708 | (c) 7.11 | (d) 7.08 |
| 9. | $\begin{array}{r} 11.2 \\ \times 3.7 \\ \hline \end{array}$ | (a) 414.4 | (b) 41.34 | (c) 41.44 | (d) 14.9 |
| 10. | $\begin{array}{r} 0.7 \\ \times 0.5 \\ \hline \end{array}$ | (a) 1.2 | (b) 3.5 | (c) 0.12 | (d) 0.35 |
| 11. | $\begin{array}{r} 0.48 \\ \times 85 \\ \hline \end{array}$ | (a) 0.4080 | (b) 40.80 | (c) 4.08 | (d) 4080 |
| 12. | $\begin{array}{r} 9.5 \\ \times 0.7 \\ \hline \end{array}$ | (a) 6.65 | (b) 66.5 | (c) 10.2 | (d) 6.35 |
| 13. | $18 \overline{)552.6}$ | (a) 3.70 | (b) 30.1 R8 | (c) 30.7 | (d) 307.0 |
| 14. | $\begin{array}{r} 2.57 \\ \times 0.59 \\ \hline \end{array}$ | (a) 3.16 | (b) 151.63 | (c) 1.7463 | (d) 1.5163 |

1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. _____
 7. _____
 8. _____
 9. _____
 10. _____
 11. _____
 12. _____
 13. _____
 14. _____

- | | | |
|--|--|--|
| 15. $\begin{array}{r} 0.003 \\ \times 3.1 \\ \hline \end{array}$ | (a) 3.103 (b) 0.0093 (c) 0.093 (d) 0.93 | 15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____ |
| 16. $8 \overline{)24.4}$ | (a) 3.05 (b) 3.2 (c) 3.0 R4 (d) 3.5 | |
| 17. $108 \overline{)148.5}$ | (a) 1.3 R81 (b) 1375 (c) 1.375 (d) 1.37 R54 | |
| 18. $\begin{array}{r} 3.587 \\ \times 4.6 \\ \hline \end{array}$ | (a) 16.5002 (b) 165.002 (c) 17.7202 (d) 3.5870 | |
| 19. Which shows the product of $\$7.46 \times 1.3$ rounded to the nearest hundredth?
(a) \$10.00 (b) \$9.698 (c) \$96.98 (d) \$9.70 | | |
| 20. Which shows the quotient of $13.33 \div 5$ rounded to the nearest tenth?
(a) 2.6 (b) 2.7 (c) 26.6 (d) 26.7 | | |
| 21. Which shows the product of 7.6×4.1 rounded to the nearest tenth?
(a) 311.6 (b) 31.2 (c) 31.1 (d) 31.16 | | |
| 22. Which shows the product of $\$3.70 \times 1.64$ rounded to the nearest hundredth?
(a) \$6.07 (b) \$606.80 (c) \$6.06 (d) \$6.10 | | |
| 23. Which shows the quotient of $16.38 \div 8$ rounded to the nearest hundredth?
(a) 2.04 (b) 2.48 (c) 2.05 (d) 2.0475 | | |
| 24. Which shows the quotient of $2.35 \div 7$ rounded to the nearest thousandth?
(a) 0.335 (b) 0.336 (c) 0.05 (d) 3.357 | | |
| 25. Kiri cut a piece of cardboard 6.2 dm long and 0.4 dm wide. Which was the area of the cardboard?
(a) 2.48 dm ² (b) 6.6 dm ² (c) 13.2 dm ² (d) 24.8 dm ² | | |
| 26. Angela had \$8.28. She wanted to divide it into equal amounts to give to her 4 small cousins. How much could she give to each?
(a) \$2.07 (b) \$2.70 (c) \$2.22 (d) \$2.02 | | |

27. 12 cans of tomato soup cost \$4.56. Which is the cost of each can? 27. _____
 Ⓐ \$0.32 Ⓑ \$3.80 Ⓒ \$0.38 Ⓓ \$0.39 28. _____
28. Which is the cost of 32 L of gasoline if 1 L costs \$0.384? 29. _____
 Ⓐ \$0.12 Ⓑ \$122.88 Ⓒ \$12.28 Ⓓ \$12.29 30. _____
29. 6 bags of potatoes have a total mass of 74.4 kg. Which is the average mass of each bag?
 Ⓐ 446.4 kg Ⓑ 12.4 kg Ⓒ 124 kg Ⓓ 1.24 kg
30. A case holds 24 bags of flour each with a mass of 3.5 kg. Which is the total mass of the flour?
 Ⓐ 84.0 kg Ⓑ 8.40 kg Ⓒ 27.5 kg Ⓓ 72.0 kg

Choose the best unit for measuring each of these.

1. length of an automobile
2. capacity of an eyedropper
3. mass of a full suitcase
4. thickness of a piece of cardboard

kilometre	metre
centimetre	millimetre
litre	millilitre
kilogram	gram

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

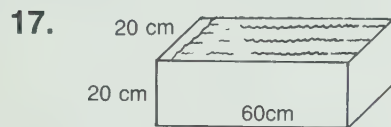
Complete.

5. 825 mm = _____ cm
6. 4000 g = _____ kg
7. 6 m = _____ cm
8. 0.5 kg = _____ g
9. 7.5 km = _____ m
10. 3 L = _____ mL
11. 1725 mL = _____ L
12. 82 cm³ = _____ mL
13. 4.5 L = _____ cm³

Which is greater,

14. 37.2 cm or 3.71 m?
15. 2030.4 g or 2.034 kg?
16. 450 mL or 0.405 L?

How heavy is the water?

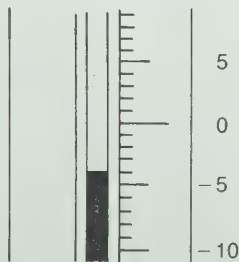


How many millilitre of water are there

18. when the mass of water is 1.4 kg?

Give the temperature.

- 19.



Write the time shown on the clock

20. when it is after bedtime.



Choose the correct answer.

Which is the best unit for measuring each?

1. the length of a knife
 Ⓐ centimetre Ⓑ metre Ⓒ kilometre Ⓓ millimetre
2. the capacity of a barrel
 Ⓐ millilitre Ⓑ cubic centimetre
 Ⓒ litre Ⓓ kilogram
3. the mass of a cookie
 Ⓐ metre Ⓑ kilogram Ⓒ millilitre Ⓓ gram
4. the capacity of a drinking glass
 Ⓐ litre Ⓑ cubic metre Ⓒ millilitre Ⓓ kilogram
5. the distance from Vancouver to Calgary
 Ⓐ metre Ⓑ kilometre Ⓒ millimetre Ⓓ decimetre
6. the mass of an apple
 Ⓐ kilogram Ⓑ litre
 Ⓒ cubic centimetre Ⓓ gram
7. the mass of an automobile
 Ⓐ kilogram Ⓑ gram Ⓒ litre Ⓓ metre
8. the thickness of a nickel
 Ⓐ millimetre Ⓑ centimetre Ⓒ decimetre Ⓓ metre
9. the capacity of a gasoline container
 Ⓐ millilitre Ⓑ litre
 Ⓒ cubic centimetre Ⓓ kilogram
10. 3250 mm = _____ m
 Ⓐ 32.5 Ⓑ 325 Ⓒ 0.325 Ⓓ 3.25

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

11. 35 L = _____ mL

- (a) 3500 (b) 35 000 (c) 350 (d) 3.5

12. 8250 g = _____ kg

- (a) 8.205 (b) 82.5 (c) 8.25 (d) 825

13. 300 cm³ = _____ L

- (a) 0.3 (b) 3 (c) 30 (d) 300

14. 4.08 L = _____ mL

- (a) 0.004 08 (b) 4080 (c) 408 (d) 4800

15. 0.065 kg = _____ g

- (a) 65 000 (b) 0.000 065 (c) 6.5 (d) 65

16. 720 m = _____ km

- (a) 72 (b) 7.2 (c) 0.72 (d) 0.072

17. 6200 mL = _____ L

- (a) 6.2 (b) 6 200 000 (c) 62 (d) 0.062

18. 240 cm = _____ mm

- (a) 24 (b) 2.4 (c) 24 000 (d) 2400

19. 1800 mL = _____ cm³

- (a) 1.8 (b) 1 800 000 (c) 180 (d) 1800

20. 1500 g = _____ kg

- (a) 1 500 000 (b) 1.5 (c) 15 (d) 0.15

21. 3.5 L = _____ dm³

- (a) 3.5 (b) 3500 (c) 0.035 (d) 35

22. Which statement is true?

- (a) 26.1 cm > 2.60 m (b) 26.1 cm < 26.1 mm
(c) 62.1 cm > 26.1 m (d) 1.26 m > 26.1 cm



23. Which statement is true?

Ⓐ $604 \text{ mL} > 0.64 \text{ L}$

Ⓑ $604 \text{ mL} = 0.64 \text{ L}$

Ⓒ $604 \text{ mL} = 6.04 \text{ L}$

Ⓓ $604 \text{ mL} < 0.64 \text{ L}$

23. _____

24. _____

25. _____

26. _____

27. _____

24. Which statement is true?

Ⓐ $1020.4 \text{ g} > 1.024 \text{ kg}$

Ⓑ $1020.4 \text{ g} = 1.024 \text{ kg}$

Ⓒ $1020.4 \text{ g} < 1.024 \text{ kg}$

Ⓓ $1020.4 \text{ g} < 1.02 \text{ kg}$

28. _____

29. _____

25. Which statement is true?

Ⓐ $7.2 \text{ L} = 7020 \text{ mL}$

Ⓑ $7.2 \text{ L} > 7020 \text{ mL}$

Ⓒ $7.2 \text{ L} < 7020 \text{ mL}$

Ⓓ $7.2 \text{ L} > 7200 \text{ mL}$

26. Which statement is true?

Ⓐ $3.05 \text{ kg} > 3500 \text{ g}$

Ⓑ $3.05 \text{ kg} < 3500 \text{ g}$

Ⓒ $3.05 \text{ kg} = 3500 \text{ g}$

Ⓓ $3.05 \text{ kg} < 3050 \text{ g}$

27. Which statement is true?

Ⓐ $4.07 \text{ km} > 407 \text{ m}$

Ⓑ $4.07 \text{ km} < 407 \text{ m}$

Ⓒ $4.07 \text{ km} = 407 \text{ m}$

Ⓓ $4.07 \text{ km} < 470 \text{ m}$

28. Which is not true?

Ⓐ $2.75 \text{ kg} = 2750 \text{ g}$

Ⓑ $27 \text{ kg} = 27\,000 \text{ g}$

Ⓒ $0.027 \text{ kg} = 27 \text{ g}$

Ⓓ $20.7 \text{ kg} = 2070 \text{ g}$

29. Which is not true?

Ⓐ $3 \text{ km} = 3000 \text{ m}$

Ⓑ $3 \text{ m} = 300 \text{ cm}$

Ⓒ $30 \text{ cm} = 3000 \text{ mm}$

Ⓓ $30 \text{ m} = 30\,000 \text{ mm}$

30. Which is not true?

- (a) $480 \text{ mL} = 0.48 \text{ L}$ (b) $4080 \text{ mL} = 4.8 \text{ L}$
 (c) $4.08 \text{ L} = 4080 \text{ mL}$ (d) $4 \text{ L} = 4000 \text{ mL}$

30. _____

31. _____

32. _____

33. _____

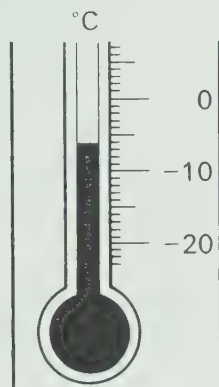
34. _____

35. _____

31. The mass of an amount of water is 3.5 kg. How much water is there?

- (a) 35 L (b) 350 cm^3 (c) 3500 mL (d) 350 g

32. Which temperature is shown?



- (a) -14°C (b) 6°C (c) -6°C (d) -10°C

33. Which time is shown on this clock?



- (a) 15:20:07 (b) 30:20:07 (c) 13:20:07 (d) 3:27:00

34. A bucket holds 6.2 L of water. How heavy is the water?

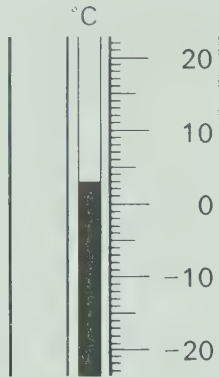
- (a) 6.2 g (b) 620 g (c) 62 g (d) 6.2 kg

35. Which is another way to express the time shown on this clock?

20:08:35

- (a) 2:08:35 (b) 10:08:35 (c) 8:08:35 (d) 8:20:35

36. Which temperature is shown?



36. _____

37. _____

38. _____

39. _____

- (a) 3°C (b) -3°C (c) 7°C (d) 6°C

37. Which time is shown on the clock if it is time for school dismissal?

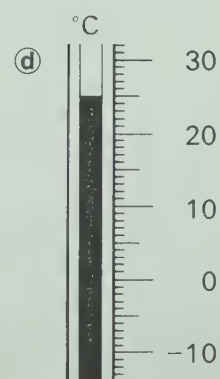
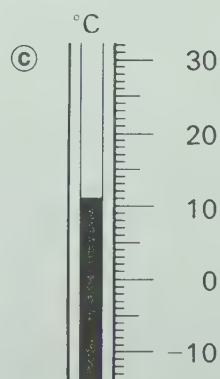
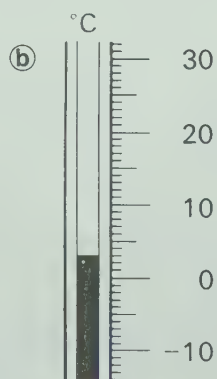
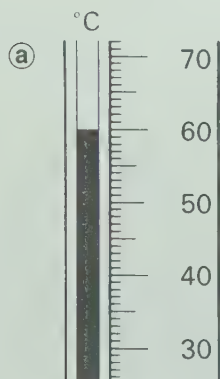


- (a) 15:30:15 (b) 03:30:15 (c) 15:15:30 (d) 16:30:15

38. The mass of an amount of water is 4520 g. How much water is there?

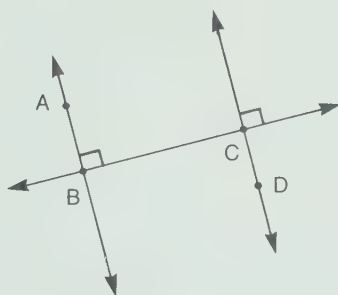
- (a) 45.2 L (b) 4520 cm^3 (c) 4.25 L (d) 4.520 cm^3

39. Which thermometer shows a temperature that would be good for a picnic?



From this picture, name

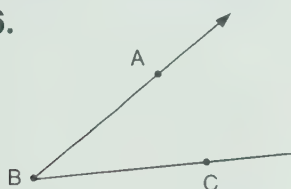
1. a line.
2. a line segment.
3. a ray.
4. two parallel lines.
5. two perpendicular lines.



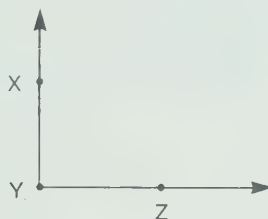
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

Use a protractor. Measure each angle. Tell whether it is acute, right, obtuse, or straight.

6.



7.




8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____

Draw an angle which measures

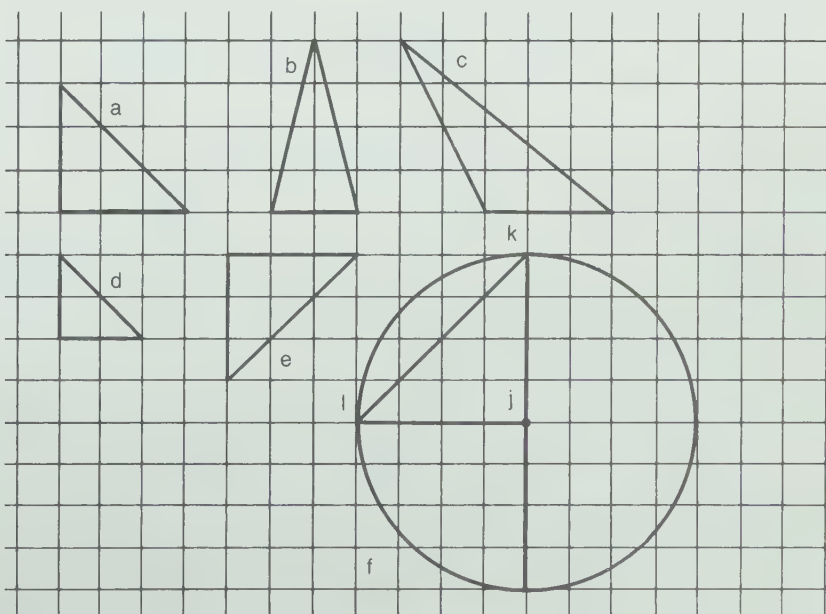
8. 135° .

Complete.

	
	rectangle
9. Number of vertices	
10. Number of sides	
11. Number of lines of symmetry	

Use the shapes shown for Exercises 12-18.

12. Which shows a scalene triangle?
13. What is the name of the centre of the circle?
14. What is the name of a chord?
15. What is the name of a diameter?
16. Which two shapes are congruent?



17. Which two shapes are similar but not congruent?

17. _____ (186)

18. For which of the triangles could you draw a line of symmetry?

18. _____ (178)

19. _____ (188)

20. Draw on page. (188)

21. _____

22. _____

23. _____

24. Draw on page.

25. _____ (192)

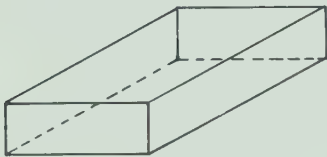
Solve.

19. The scale on a map is 1 cm to 30 km. If the real distance between two cities is 135 km, what is the distance between them on the map?

Use a ruler and a scale of 1 cm to 5 km.

20. Make a scale drawing of a rectangle that is 25 km long and 10 km wide.

Use the solid shape pictured for Exercises 21-25.



21. How many vertices are there?

22. How many edges are there?

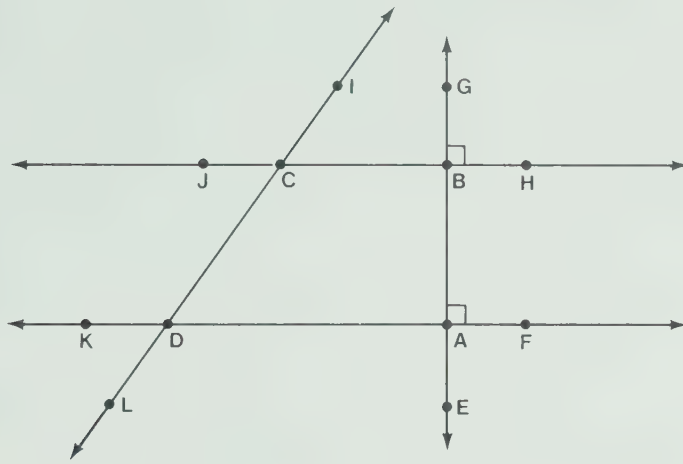
23. What is the shape of one of the faces?

24. Draw a pattern for the solid.

25. What kind of solid is it?

Choose the correct answer.

Use the diagram for exercises 1 to 9.



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

1. Which names a line segment?

- (a) \overleftrightarrow{AB} (b) \overrightarrow{AE} (c) \overrightarrow{DK} (d) \overline{DC}

2. Which names a pair of parallel lines?

- (a) \overleftrightarrow{AB} and \overleftrightarrow{DC} (b) \overleftrightarrow{AB} and \overleftrightarrow{AD} (c) \overleftrightarrow{AD} and \overleftrightarrow{BI} (d) \overleftrightarrow{AD} and \overleftrightarrow{BC}

3. Which names an acute angle?

- (a) $\angle DAB$ (b) $\angle CDK$ (c) $\angle ABG$ (d) $\angle ADC$

4. Which names a line?

- (a) \overrightarrow{AD} (b) \overleftrightarrow{AD} (c) \overline{AB} (d) \overline{AD}

5. Which names a right angle?

- (a) $\angle AJB$ (b) $\angle DAG$ (c) $\angle JCI$ (d) $\angle JCD$

6. Which names a pair of perpendicular lines?

- (a) \overleftrightarrow{AB} and \overleftrightarrow{CD} (b) \overleftrightarrow{FA} and \overleftrightarrow{HB} (c) \overleftrightarrow{AD} and \overleftrightarrow{BE} (d) \overleftrightarrow{EG} and \overleftrightarrow{DB}

7. Which names an obtuse angle?

- (a) $\angle KDC$ (b) $\angle BDC$ (c) $\angle ABC$ (d) $\angle DCJ$

8. Which names a ray?

- (a) \overleftrightarrow{BC} (b) \overline{DL} (c) \overrightarrow{AD} (d) \overleftrightarrow{CI}

9. Which names a pair of intersecting lines that are not perpendicular?

- Ⓐ \overleftrightarrow{IL} and \overleftrightarrow{HJ} Ⓑ \overleftrightarrow{AB} and \overleftrightarrow{BC} Ⓒ \overleftrightarrow{AD} and \overleftrightarrow{BC} Ⓓ \overline{AF} and \overline{CD}

9. _____

10. _____

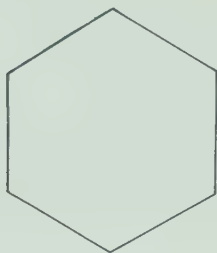
11. _____

10. How many vertices are there in the regular hexagon?

12. _____

13. _____

14. _____

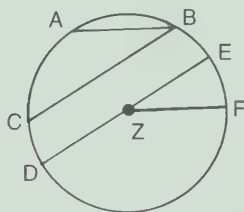


- Ⓐ 3 Ⓑ 6 Ⓒ 7 Ⓓ 12

11. How many lines of symmetry does the regular hexagon in exercise 10 have?

- Ⓐ 2 Ⓑ 3 Ⓒ 6 Ⓓ 12

Use this figure for exercises 12 to 14.



12. Which names a radius of the circle?

- Ⓐ \overline{AB} Ⓑ \overline{BC} Ⓒ \overline{DE} Ⓓ \overline{ZE}

13. Which names a diameter of the circle?

- Ⓐ \overline{ED} Ⓑ \overline{ZF} Ⓒ \overline{BC} Ⓓ \overline{FZD}

14. Which does not name a chord of the circle?

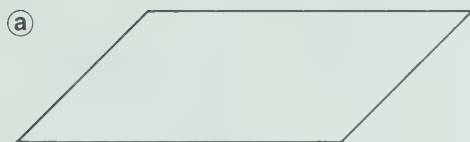
- Ⓐ \overline{AB} Ⓑ \overline{ZF} Ⓒ \overline{CB} Ⓓ \overline{DE}

15. Which shape is congruent to this shape?

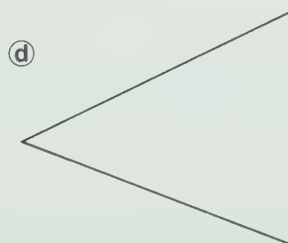
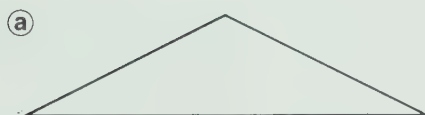
15. _____

16. _____

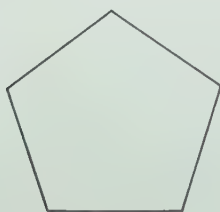
17. _____



16. Which shape is similar to this shape?



17. How many vertices are in the regular pentagon?



(a) 1

(b) 2

(c) 3

(d) 5



18. How many sides are in the regular pentagon in exercise 17?

- (a) 5 (b) 2 (c) 4 (d) 6

18. _____

19. _____

20. _____

21. _____

19. Which shape is congruent to this shape?



(a)



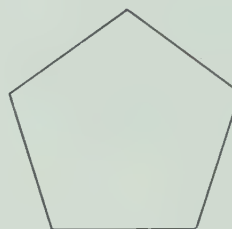
(b)



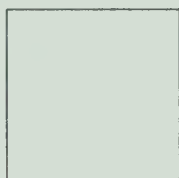
(c)



(d)



20. How many lines of symmetry are in the square?



(a) 1

(b) 2

(c) 4

(d) 6

21. Which shape is similar to this shape?



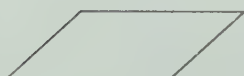
(a)



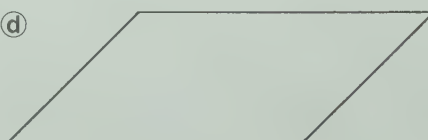
(b)



(c)



(d)



22. Which two figures are congruent?

22. _____

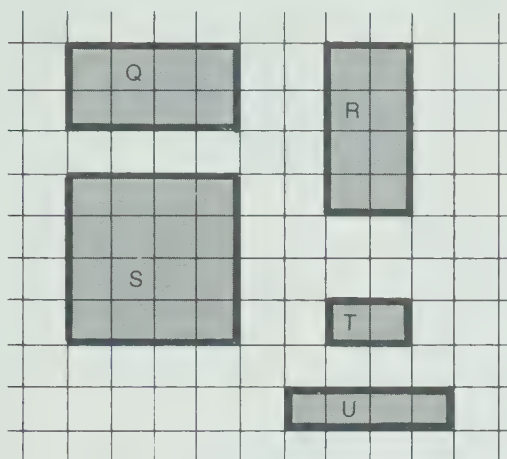
23. _____

24. _____

25. _____

26. _____

27. _____

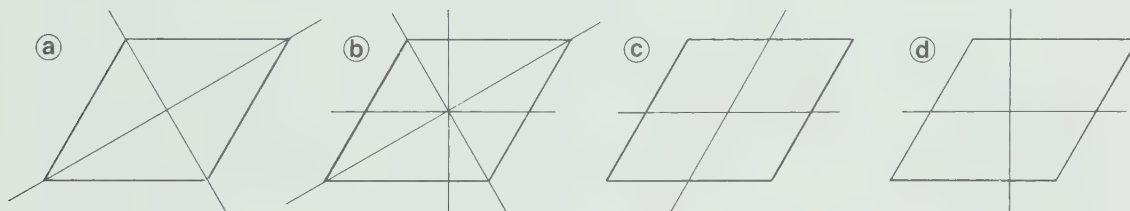


- Ⓐ R and T Ⓑ Q and S Ⓒ U and T Ⓓ Q and R

23. Which two shapes in exercise 22 are similar but not congruent?

- Ⓐ T and R Ⓑ T and S Ⓒ T and U Ⓓ Q and S

24. Which drawing shows a figure and all its lines of symmetry?



25. A map uses a scale of 1 cm to 50 km. Two islands on the map are 4.3 cm apart. Which is the real distance between the islands?

- Ⓐ 21.50 km Ⓑ 215 km Ⓒ 430 km Ⓓ 205 km

26. The scale on a map is 1 cm to 50 km. If Montreal and Charlottetown are 16.3 cm apart on the map, which is the real distance between the two cities?

- Ⓐ 50 km Ⓑ 16.3 km Ⓒ 8150 km Ⓓ 815 km

27. The scale on a map is 1 cm to 30 km and the distance between two points on the map is 25 cm. Which is the real distance between the two points?

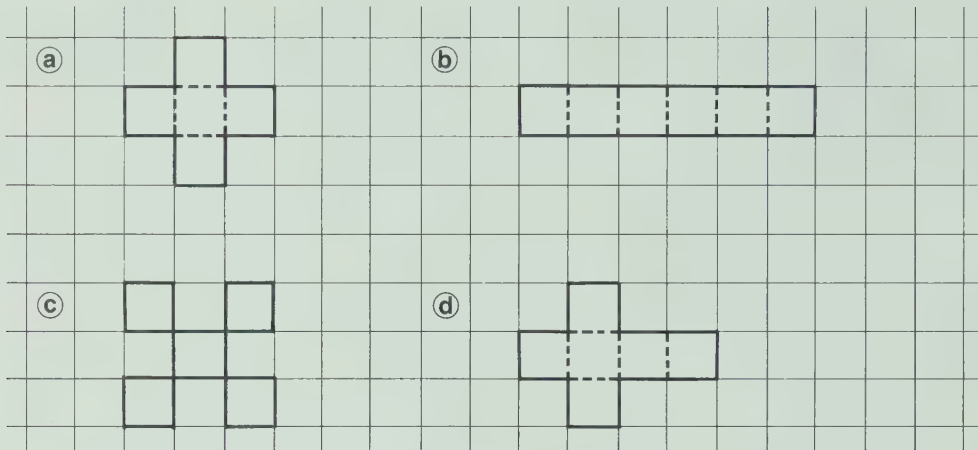
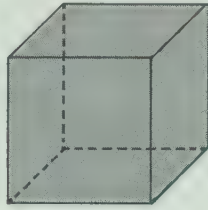
- Ⓐ 75 km Ⓑ 750 km Ⓒ 25 km Ⓓ 30 km

28. Which shows a pattern for a cube?

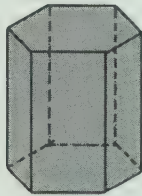
28. _____

29. _____

30. _____



29. How many faces does the hexagonal prism have?



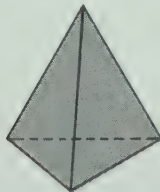
(a) 4

(b) 12

(c) 8

(d) 6

30. Which describes the faces of a triangular pyramid?



(a) 3 triangles

(b) 4 triangles and 1 square

(c) 5 triangles

(d) 4 triangles

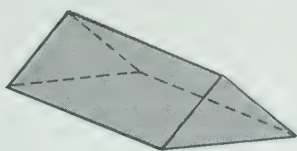
31. How many edges does the triangular prism have?

31. _____

32. _____

33. _____

34. _____



(a) 5

(b) 6

(c) 9

(d) 12

32. Which describes the faces of the prism in exercise 31?

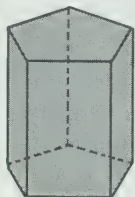
(a) 5 triangles

(b) 3 triangles and 3 rectangles

(c) 2 triangles and 3 rectangles

(d) 2 triangles and 4 rectangles

33. Which describes the faces of a pentagonal prism?



(a) 7 pentagons

(b) 2 pentagons and 5 rectangles

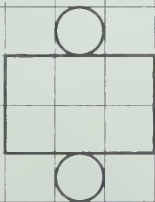
(c) 2 pentagons and 5 triangles

(d) 1 pentagon and 5 rectangles

34. Which shows a pattern for a cylinder?



(a)



(b)



(c)



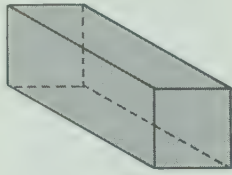
(d)



35. How many vertices in the rectangular prism?

35. _____

36. _____



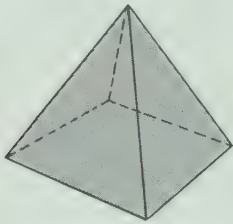
(a) 6

(b) 8

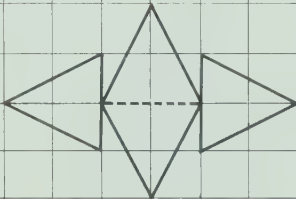
(c) 12

(d) 4

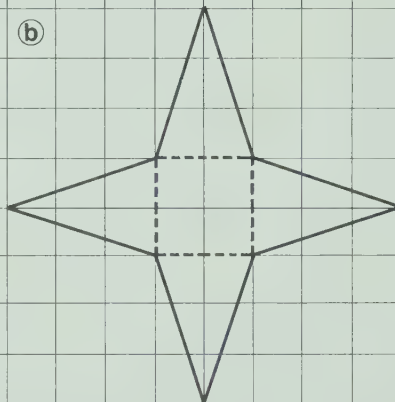
36. Which shows a pattern for a square pyramid?



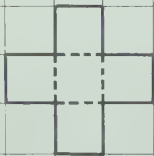
(a)



(b)



(c)



(d)



For the fraction $\frac{3}{8}$,

1. what is the denominator?

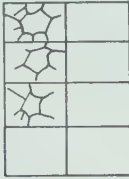
1. _____

2. _____

3. _____

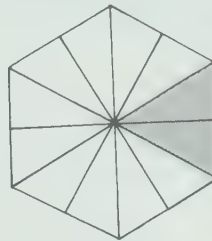
Write a fraction to show how many window panes are broken.

2.



Write two equivalent fractions to show how much is shaded.

3.



4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

4. Write three fractions equivalent to $\frac{1}{3}$.

Write the fraction in the lowest terms that is equivalent to

5. $\frac{12}{16}$

6. $\frac{8}{24}$

7. $\frac{30}{36}$

Are the two fractions equivalent? Use cross products.

8. $\frac{1}{4}, \frac{4}{16}$

9. $\frac{2}{5}, \frac{3}{7}$

Find the missing term.

10. $\frac{2}{10} = \frac{\blacksquare}{15}$

11. $\frac{6}{21} = \frac{4}{\blacksquare}$

Write 2 as an improper fraction showing fourths.

12. $2 = \frac{\quad}{\quad}$

Write each of these as an improper fraction.

13. $1\frac{7}{8}$

14. $3\frac{1}{3}$

Write each of these as a whole number or a number in mixed form.

15. $\frac{13}{10}$

16. $\frac{25}{5}$

For each pair, find equivalent fractions with like denominators.

17. $\frac{1}{5}, \frac{2}{3}$

18. $1\frac{1}{4}, 1\frac{1}{6}$

Use $>$, $<$, or $=$ to make true statements.

19. $\frac{3}{5} \text{ } \ominus \text{ } \frac{2}{3}$

20. $\frac{4}{10} \text{ } \ominus \text{ } \frac{2}{6}$

Choose the correct answer.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

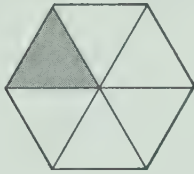
8. _____

9. _____

1. Which fraction has a numerator of 7?

(a) $\frac{5}{7}$ (b) $\frac{7}{8}$ (c) $1\frac{3}{7}$ (d) $\frac{2}{5}$

2. Which fraction tells how much of the figure is shaded?



(a) $\frac{1}{5}$ (b) $\frac{5}{6}$ (c) $\frac{1}{6}$ (d) $\frac{6}{1}$

3. Which two fractions tell how much is shaded?



(a) $\frac{6}{10}$ and $\frac{3}{5}$ (b) $\frac{4}{6}$ and $\frac{2}{3}$ (c) $\frac{10}{4}$ and $\frac{5}{2}$ (d) $\frac{4}{10}$ and $\frac{2}{5}$

4. Which shows two fractions that are equivalent to
- $\frac{4}{9}$
- ?

(a) $\frac{2}{3}, \frac{8}{18}$ (b) $\frac{8}{18}, \frac{12}{22}$ (c) $\frac{16}{81}, \frac{64}{729}$ (d) $\frac{8}{18}, \frac{12}{27}$

5. Which fraction in lowest terms is equivalent to
- $\frac{8}{12}$
- ?

(a) $\frac{3}{4}$ (b) $\frac{4}{6}$ (c) $\frac{2}{3}$ (d) $\frac{3}{2}$

6. Which fraction has a denominator of 5?

(a) $\frac{5}{8}$ (b) $\frac{2}{3}$ (c) $\frac{3}{5}$ (d) $5\frac{2}{3}$

7. Which fraction of the letters in ALBERTA are the letter A?

(a) $\frac{2}{5}$ (b) $\frac{2}{7}$ (c) $\frac{5}{7}$ (d) $\frac{7}{2}$

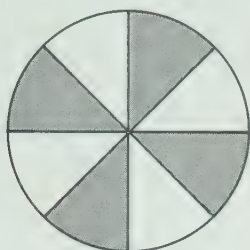
8. Which fraction has a numerator of 4?

(a) $\frac{3}{4}$ (b) $\frac{4}{5}$ (c) $4\frac{1}{4}$ (d) $\frac{1}{3}$

9. Which shows two fractions that are equivalent to
- $\frac{3}{8}$
- ?

(a) $\frac{6}{11}, \frac{9}{14}$ (b) $\frac{6}{16}, \frac{9}{24}$ (c) $\frac{3}{16}, \frac{9}{24}$ (d) $\frac{6}{8}, \frac{9}{8}$

10. Which two fractions tell how much is shaded?



10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

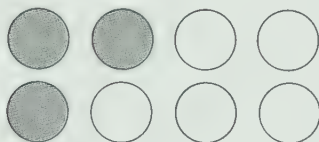
16. _____

- (a) $\frac{4}{4}$ and $\frac{1}{1}$ (b) $\frac{4}{8}$ and $\frac{2}{4}$ (c) $\frac{1}{2}$ and $\frac{2}{8}$ (d) $\frac{8}{4}$ and $\frac{2}{1}$

11. Which fraction in lowest terms is equivalent to $\frac{30}{36}$?

- (a) $\frac{15}{18}$ (b) $\frac{10}{12}$ (c) $\frac{5}{6}$ (d) $\frac{3}{4}$

12. Which fraction tells how much is shaded?



- (a) $\frac{3}{8}$ (b) $\frac{5}{8}$ (c) $\frac{3}{5}$ (d) $\frac{8}{3}$

13. Which two fractions tell how much is shaded?



- (a) $\frac{12}{16}$ and $\frac{3}{4}$ (b) $\frac{4}{16} = \frac{1}{4}$ (c) $\frac{4}{16} = \frac{1}{8}$ (d) $\frac{4}{12} = \frac{1}{3}$

14. Which shows two fractions that are equivalent to $\frac{1}{3}$?

- (a) $\frac{2}{6}, \frac{3}{9}$ (b) $\frac{2}{3}, \frac{3}{3}$ (c) $\frac{2}{4}, \frac{3}{5}$ (d) $\frac{1}{6}, \frac{1}{9}$

15. Which fraction in lowest terms is equivalent to $\frac{12}{27}$?

- (a) $\frac{4}{9}$ (b) $\frac{2}{3}$ (c) $\frac{12}{27}$ (d) $\frac{1}{2}$

16. Use cross products to find the pair of fractions that are not equivalent.

- (a) $\frac{5}{6}, \frac{15}{18}$ (b) $\frac{3}{12}, \frac{4}{16}$ (c) $\frac{1}{5}, \frac{2}{10}$ (d) $\frac{1}{3}, \frac{2}{7}$

17. Which is the missing term for $\frac{2}{9} = \frac{\blacksquare}{18}$?

- (a) 11 (b) 4 (c) 1 (d) 3

18. Which is the missing term for $\frac{6}{15} = \frac{2}{\blacksquare}$?

- (a) 45 (b) 11 (c) 5 (d) 7

19. Use cross products to find the pair of fractions that are equivalent.

- (a) $\frac{3}{8}, \frac{16}{6}$ (b) $\frac{4}{8}, \frac{2}{16}$ (c) $\frac{15}{24}, \frac{10}{16}$ (d) $\frac{5}{8}, \frac{2}{5}$

20. Use cross products to find the pair of fractions that are equivalent.

- (a) $\frac{9}{24}, \frac{6}{16}$ (b) $\frac{9}{24}, \frac{6}{21}$ (c) $\frac{9}{24}, \frac{16}{6}$ (d) $\frac{9}{16}, \frac{6}{24}$

21. Which is the missing term for $\frac{6}{15} = \frac{10}{\blacksquare}$?

- (a) 25 (b) 19 (c) 4 (d) 20

22. Which shows 4 as an improper fraction?

- (a) $\frac{20}{5}$ (b) $\frac{4}{4}$ (c) $\frac{1}{4}$ (d) 4.0

23. Which shows $1\frac{7}{8}$ as an improper fraction?

- (a) $\frac{15}{7}$ (b) $\frac{16}{7}$ (c) $\frac{15}{8}$ (d) $\frac{17}{8}$

24. Which shows $\frac{14}{9}$ as a number in mixed form?

- (a) $1\frac{5}{14}$ (b) 1.4 (c) $1\frac{4}{9}$ (d) $1\frac{5}{9}$

25. Which shows $8\frac{2}{5}$ as an improper fraction?

- (a) $\frac{21}{5}$ (b) $\frac{82}{5}$ (c) $\frac{18}{5}$ (d) $\frac{42}{5}$

26. Which shows 5 as an improper fraction?

- (a) $\frac{5}{5}$ (b) $\frac{1}{5}$ (c) $\frac{20}{5}$ (d) $\frac{15}{3}$

27. Which shows $\frac{24}{5}$ as a number in mixed form?

- (a) $2\frac{4}{5}$ (b) $5\frac{1}{5}$ (c) $4\frac{5}{4}$ (d) $4\frac{4}{5}$

17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____

28. Which shows 3 as an improper fraction?

- (a) $\frac{12}{4}$ (b) $\frac{1}{3}$ (c) $\frac{3}{3}$ (d) $\frac{12}{3}$

28. _____

29. _____

30. _____

29. Which shows $\frac{42}{7}$ as a number in mixed form?

- (a) $4\frac{2}{7}$ (b) 6 (c) $5\frac{7}{7}$ (d) $\frac{1}{6}$

31. _____

32. _____

33. _____

30. Which shows $3\frac{1}{4}$ as an improper fraction?

- (a) $\frac{13}{4}$ (b) $\frac{8}{4}$ (c) $\frac{7}{4}$ (d) $\frac{31}{4}$

34. _____

35. _____

36. _____

31. For the pair $\frac{5}{8}, \frac{2}{3}$, which is a pair of equivalent fractions with like denominators?

- (a) $\frac{10}{16}, \frac{11}{16}$ (b) $\frac{10}{16}, \frac{4}{6}$ (c) $\frac{15}{24}, \frac{16}{24}$ (d) $\frac{9}{12}, \frac{8}{12}$

32. Which is a true statement?

- (a) $\frac{4}{9} = \frac{7}{16}$ (b) $\frac{4}{9} < \frac{7}{16}$ (c) $\frac{4}{9} = \frac{11}{16}$ (d) $\frac{4}{9} > \frac{7}{16}$

33. Which is a true statement?

- (a) $\frac{4}{7} > \frac{3}{5}$ (b) $\frac{4}{7} < \frac{3}{5}$ (c) $\frac{4}{7} = \frac{3}{5}$ (d) $\frac{4}{7} = \frac{3}{6}$

34. For the pair $\frac{3}{4}, \frac{7}{8}$, which is a pair of equivalent fractions with like denominators?

- (a) $\frac{8}{12}, \frac{11}{12}$ (b) $\frac{3}{32}, \frac{7}{32}$ (c) $\frac{6}{8}, \frac{7}{8}$ (d) $\frac{6}{8}, \frac{14}{16}$

35. For the pair $\frac{5}{6}, \frac{3}{10}$, which is a pair of equivalent fractions with like denominators?

- (a) $\frac{25}{30}, \frac{9}{30}$ (b) $\frac{5}{60}, \frac{3}{60}$ (c) $\frac{25}{30}, \frac{15}{50}$ (d) $\frac{15}{16}, \frac{9}{16}$

36. Which statement is not true?

- (a) $\frac{3}{4} > \frac{2}{3}$ (b) $1\frac{1}{5} > 1\frac{1}{6}$ (c) $\frac{9}{16} > \frac{11}{20}$ (d) $\frac{7}{15} > \frac{4}{7}$

Add. Show each sum in lowest terms.

1. $\frac{2}{7} + \frac{3}{7}$

2. $\frac{3}{8} + \frac{1}{8}$

3. $\frac{1}{3} + \frac{2}{5}$

4. $1\frac{1}{4} + 2\frac{2}{5}$

5. $\frac{3}{4} + \frac{3}{4}$

6. $1\frac{1}{2} + 1\frac{2}{3}$

Subtract. Show each difference in lowest terms.

7. $\frac{4}{7} - \frac{3}{7}$

8. $3\frac{5}{6} - 2\frac{1}{6}$

9. $\frac{4}{7} - \frac{1}{2}$

10. $1\frac{1}{2} - 1\frac{1}{3}$

11. $1\frac{1}{4} - \frac{2}{3}$

12. $8 - \frac{8}{9}$

Multiply. Show each product in lowest terms.

13. $\frac{2}{3} \times \frac{3}{4}$

14. $\frac{4}{7} \times \frac{4}{5}$

15. $\frac{5}{8} \times \frac{2}{5}$

16. $\frac{2}{9} \times \frac{6}{7}$

17. $1\frac{1}{2} \times 7$

18. $3 \times \frac{2}{7}$

Find the reciprocals.

19. $\frac{7}{9}$

20. $1\frac{1}{5}$

Complete.

21. $\frac{9}{5} \times \frac{\boxed{a}}{\boxed{b}} = 1$

22. $8 \times \frac{\boxed{a}}{\boxed{b}} = 1$

Divide. Show each quotient in lowest terms.

23. $\frac{3}{4} \div 3$

24. $4 \div \frac{1}{3}$

25. $\frac{8}{9} \div \frac{2}{3}$

26. $3 \div \frac{3}{8}$

27. $\frac{1}{4} \div 2$

28. $\frac{1}{2} \div \frac{4}{5}$

Write a decimal with up to two places for each fraction.

29. $\frac{1}{3}$

30. $\frac{4}{5}$

31. $\frac{3}{8}$

32. $\frac{7}{10}$

33. $\frac{7}{9}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

26. _____

27. _____

28. _____

29. _____

30. _____

31. _____

32. _____

33. _____

Choose the correct answer.

Answers should be in lowest terms for exercises 1 to 30.

1. $\frac{3}{7} + \frac{1}{7}$

(a) $\frac{4}{14}$

(b) $\frac{10}{8}$

(c) $\frac{4}{7}$

(d) $\frac{3}{7}$

2. $\frac{7}{10} - \frac{4}{10}$

(a) $\frac{11}{10}$

(b) $\frac{3}{20}$

(c) $\frac{3}{10}$

(d) $\frac{3}{0}$

3. $\frac{5}{7} \times \frac{8}{10}$

(a) $\frac{50}{56}$

(b) $\frac{40}{17}$

(c) $\frac{4}{7}$

(d) $\frac{32}{70}$

4. $\frac{7}{9} + \frac{2}{3}$

(a) $1\frac{4}{9}$

(b) $\frac{9}{12}$

(c) $\frac{14}{27}$

(d) $1\frac{1}{3}$

5. $2\frac{1}{3} - 2\frac{1}{4}$

(a) $2\frac{1}{12}$

(b) $1\frac{11}{12}$

(c) $1\frac{1}{12}$

(d) $\frac{1}{12}$

6. $3 \times \frac{4}{5}$

(a) $3\frac{4}{5}$

(b) $2\frac{2}{5}$

(c) $\frac{12}{15}$

(d) $\frac{4}{15}$

7. $3\frac{4}{5} - 1\frac{3}{5}$

(a) $5\frac{2}{5}$

(b) $2\frac{1}{5}$

(c) $\frac{1}{5}$

(d) $2\frac{1}{10}$

8. $4\frac{3}{5} + 7\frac{1}{5}$

(a) $11\frac{4}{5}$

(b) $11\frac{4}{10}$

(c) $\frac{25}{5}$

(d) $\frac{15}{5}$

9. $\frac{3}{10} \times \frac{3}{10}$

(a) $\frac{9}{10}$

(b) $\frac{6}{20}$

(c) 1

(d) $\frac{9}{100}$

10. $1\frac{5}{6} + \frac{5}{6}$

(a) $1\frac{10}{12}$

(b) $2\frac{10}{6}$

(c) $2\frac{2}{3}$

(d) $1\frac{8}{3}$

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. $1\frac{1}{5} \times \frac{1}{6}$

- (a) $\frac{36}{5}$ (b) $\frac{1}{6}$ (c) $1\frac{1}{30}$ (d) $\frac{1}{5}$

12. $9\frac{1}{10} - \frac{9}{10}$

- (a) $8\frac{1}{5}$ (b) $9\frac{1}{5}$ (c) $8\frac{2}{5}$ (d) $8\frac{8}{10}$

13. $4\frac{4}{9} + 2\frac{2}{9}$

- (a) $6\frac{2}{3}$ (b) $6\frac{6}{18}$ (c) $2\frac{2}{9}$ (d) $6\frac{8}{9}$

14. $7\frac{11}{12} - 3\frac{5}{12}$

- (a) $4\frac{1}{2}$ (b) $11\frac{4}{12}$ (c) $4\frac{1}{4}$ (d) $\frac{6}{12}$

15. $\frac{3}{8} \times 5$

- (a) $5\frac{3}{8}$ (b) $\frac{15}{40}$ (c) $1\frac{7}{8}$ (d) $\frac{3}{40}$

16. $\frac{7}{9} - \frac{2}{3}$

- (a) $\frac{5}{6}$ (b) $\frac{2}{9}$ (c) $\frac{13}{9}$ (d) $\frac{1}{9}$

17. $\frac{1}{3} + \frac{1}{4} + \frac{1}{6}$

- (a) $\frac{3}{13}$ (b) $\frac{9}{36}$ (c) $\frac{3}{12}$ (d) $\frac{3}{4}$

18. $2\frac{1}{2} \times 1\frac{1}{3}$

- (a) $2\frac{1}{6}$ (b) $1\frac{7}{8}$ (c) $3\frac{1}{3}$ (d) $\frac{231}{6}$

19. $2\frac{3}{5} + 3\frac{2}{3}$

- (a) $5\frac{5}{8}$ (b) $5\frac{19}{30}$ (c) $6\frac{9}{15}$ (d) $6\frac{4}{15}$

20. $5\frac{1}{3} - 1\frac{3}{4}$

- (a) $4\frac{5}{12}$ (b) $4\frac{7}{12}$ (c) $3\frac{5}{12}$ (d) $3\frac{7}{12}$

21. $6 \times \frac{2}{3}$

- (a) $6\frac{2}{3}$ (b) 4 (c) $\frac{12}{18}$ (d) $\frac{1}{9}$

11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____

22. $\frac{9}{10} - \frac{1}{2}$

- (a) $\frac{2}{5}$ (b) $\frac{8}{8}$ (c) $1\frac{4}{10}$ (d) $\frac{4}{0}$

22. _____

23. _____

24. _____

23. $\frac{3}{10} + \frac{1}{5}$

- (a) $\frac{5}{10}$ (b) $\frac{4}{15}$ (c) $\frac{5}{20}$ (d) $\frac{1}{10}$

25. _____

26. _____

27. _____

24. $\frac{5}{8} \times \frac{3}{8}$

- (a) $\frac{15}{64}$ (b) $\frac{5}{3}$ (c) $\frac{15}{8}$ (d) $\frac{15}{16}$

28. _____

29. _____

30. _____

25. $\frac{5}{9} \div \frac{2}{3}$

- (a) $\frac{10}{27}$ (b) $\frac{5}{6}$ (c) $\frac{15}{18}$ (d) $1\frac{1}{5}$

31. _____

32. _____

26. $\frac{7}{8} + \frac{3}{4}$

- (a) $\frac{10}{12}$ (b) $1\frac{5}{8}$ (c) $1\frac{3}{8}$ (d) $\frac{13}{16}$

27. $3 \div \frac{5}{6}$

- (a) $3\frac{5}{6}$ (b) $2\frac{1}{2}$ (c) $3\frac{3}{5}$ (d) $\frac{5}{18}$

28. $7 - \frac{1}{6}$

- (a) $6\frac{5}{6}$ (b) $7\frac{1}{6}$ (c) $\frac{6}{6}$ (d) $6\frac{9}{6}$

29. $3\frac{3}{4} \times \frac{2}{5}$

- (a) $3\frac{3}{10}$ (b) $1\frac{1}{2}$ (c) $9\frac{3}{8}$ (d) $\frac{66}{20}$

30. $\frac{3}{5} \div 5$

- (a) $5\frac{3}{5}$ (b) 3 (c) $\frac{3}{25}$ (d) $\frac{25}{3}$

31. For which pair are the two numbers not reciprocals?

- (a) 9 and $\frac{1}{9}$ (b) $\frac{1}{7}$ and $1\frac{1}{7}$ (c) $\frac{2}{3}$ and $\frac{3}{2}$ (d) $\frac{7}{8}$ and $1\frac{1}{7}$

32. Which number is the reciprocal of $1\frac{3}{4}$?

- (a) $1\frac{4}{3}$ (b) $\frac{4}{13}$ (c) $\frac{7}{4}$ (d) $\frac{4}{7}$

33. Which number is the reciprocal of $\frac{5}{9}$?

- Ⓐ $\frac{4}{9}$ Ⓑ $1\frac{4}{5}$ Ⓒ $\frac{6}{5}$ Ⓓ $1\frac{5}{9}$

33. _____

34. _____

35. _____

36. _____

34. Which shows $\frac{7}{4}$ rewritten as a decimal?

- Ⓐ 7.4 Ⓑ 0.57 Ⓒ 1.70 Ⓓ 1.75

35. Which shows $\frac{5}{8}$ rewritten as a decimal rounded to two decimal places?

- Ⓐ 1.60 Ⓑ 0.63 Ⓒ 0.62 Ⓓ 0.58

36. Which statement is not true when the fraction is changed to a decimal and rounded to two decimal places?

- Ⓐ $\frac{2}{3}$ changes to 0.67 Ⓑ $\frac{1}{8}$ changes to 0.13
Ⓒ $\frac{3}{10}$ changes to 0.33 Ⓓ $\frac{1}{4}$ changes to 0.25

Give a ratio for

1. triangles to quadrilaterals.



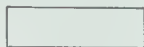
1. _____

2. triangles to polygons.



2. _____

3. quadrilaterals to polygons.



3. _____

4. _____

5. _____

6. _____

Write two ratios that are equivalent to each of these.

4. $\frac{1}{5}$

5. 5:6

Write each of these ratios in simplest form.

6. 24:8

7. $\frac{15}{25}$

7. _____

8. _____

9. _____

Find the value for ■ that makes the ratios equivalent.

8. $\frac{7}{10} = \frac{14}{\blacksquare}$

9. $\frac{3}{15} = \frac{\blacksquare}{5}$

10. $\frac{0.5}{12} = \frac{\blacksquare}{36}$

10. _____

11. _____

11. $\frac{4}{12} = \frac{6}{\blacksquare}$

12. $\frac{15}{18} = \frac{10}{\blacksquare}$

13. $\frac{2.4}{6} = \frac{\blacksquare}{25}$

12. _____

13. _____

Solve.

14. The ratio of girls to boys was 4:3. There were 24 girls. How many boys were there?

14. _____

15. _____

16. _____

15. 4 out of every 9 students have seen the movie. There are 72 students altogether. How many have seen the movie?

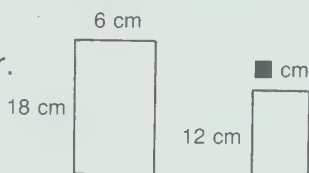
17. _____

18. _____

19. _____

The figures shown are similar.

16. Find the value for ■.



20. _____

Find the unit rate.

17. 140 km in 40 s

18. 6 L in 10 s

Find the unit price.

19. \$2.40 for 5 grapefruit

20. 90¢ for 12 beads

Choose the correct answer.

Use this picture for exercises 1 to 3.



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

1. Which is a ratio for mittens to socks?
(a) 5:4 (b) 9:5 (c) 4:9 (d) 5:9
2. Which shows a ratio for mittens to total items?
(a) 5:4 (b) 5:9 (c) 4:9 (d) 9:5
3. Which shows a ratio for socks to total items?
(a) 4:5 (b) 5:4 (c) 4:9 (d) 9:4
4. Which ratio is equivalent to the ratio 2:5?
(a) 3:6 (b) 10:70 (c) 18:35 (d) 12:30
5. Which is the simplest form for $\frac{21}{6}$?
(a) $\frac{7}{3}$ (b) $\frac{7}{2}$ (c) $\frac{14}{4}$ (d) $\frac{3}{1}$
6. Which is the missing term for $\frac{0.6}{8} = \frac{\blacksquare}{24}$?
(a) 1.8 (b) 1.08 (c) 18 (d) 1.88
7. Which is the unit rate when there are 32.5 kg in 25 m³?
(a) 13 kg/m³ (b) 3 kg/m³ (c) 1.5 kg/m³ (d) 1.3 kg/m³
8. Which is the simplest form for 12:27?
(a) 6:9 (b) 2:3 (c) 4:9 (d) 9:4
9. Which ratio is equivalent to the ratio 5:2?
(a) 2:5 (b) 10:7 (c) 25:4 (d) 15:6
10. Which is the unit price, to the nearest cent, when 35 plums cost \$3.99?
(a) 11¢ (b) 9¢ (c) 12¢ (d) 10¢

11. Which is the missing term for $\frac{6}{8} = \frac{\blacksquare}{28}$? 11. _____
(a) 16 (b) 21 (c) 24 (d) 26 12. _____
13. _____
12. Which ratio is equivalent to the ratio 6:10? 14. _____
(a) 3:5 (b) 10:6 (c) 12:16 (d) 36:100 15. _____
16. _____
13. Which is the unit rate for 100 m in 8 s? 17. _____
(a) 0.08 m/s (b) 125 m/s (c) 12.5 m/s (d) 10 m/s 18. _____
14. Which is the unit price, to the nearest cent, when 7 cans of soup cost \$2.31? 19. _____
(a) \$0.70 (b) \$0.37 (c) \$2.31 (d) \$0.33 20. _____
21. _____
15. Which is the missing term for $\frac{24}{26} = \frac{36}{\blacksquare}$?
(a) 48 (b) 34 (c) 39 (d) 38
16. Which is the simplest form for 15:60?
(a) 1:4 (b) 5:20 (c) 3:12 (d) 1:10
17. Which is the unit rate for 425 km in 5 h?
(a) 81 km/h (b) 85 km/h (c) 850 km/h (d) 420 km/h
18. Which is the unit price, to the nearest cent, when 5 grapefruit cost \$1.44?
(a) \$0.33 (b) \$0.29 (c) \$0.28 (d) \$0.21
19. Jason puts \$2 out of every \$5 he earns into a savings account.
Last summer he earned \$680. How much did he put into his savings account?
(a) \$136 (b) \$272 (c) \$194 (d) \$288
20. Prizes were given to 4 out of every 25 entries in a contest.
If there were 800 entries, how many prizes were given out?
(a) 200 (b) 32 (c) 5000 (d) 128
21. In another contest, prizes were given to 3 out of every 10 entries.
If 72 prizes were given out, how many entries were there?
(a) 24 (b) 200 (c) 240 (d) 22

Write a percent for each of these.

1. 79 out of 100

2. 34:100

3. 0.07

4. 0.2

5. $\frac{8}{100}$

6. $\frac{4}{10}$

7. $\frac{3}{5}$

8. $\frac{1}{4}$

Write a decimal for each percent.

9. 9%

10. 80%

Write a fraction in lowest terms for each percent.

11. 61%

12. 40%

Find

13. 32% of 500.

14. 4% of 320.

Solve.

15. 30% of the mass of the mixed nuts are peanuts. How heavy are the peanuts in 150g of mixed nuts?

16. Kari has \$125 in her savings account. It earns 8% interest after one year. How much interest will Kari receive for the \$125 after one year?

17. Kari's parents borrowed \$3000 from the bank. After one year they will have to pay back the loan plus 18% interest. How much will the interest be?

18. Employees at the clothing store get 15% discount off the regular price. Dermot, who works there, buys a shirt with a regular price of \$8.00. How much is his discount?

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

18. _____

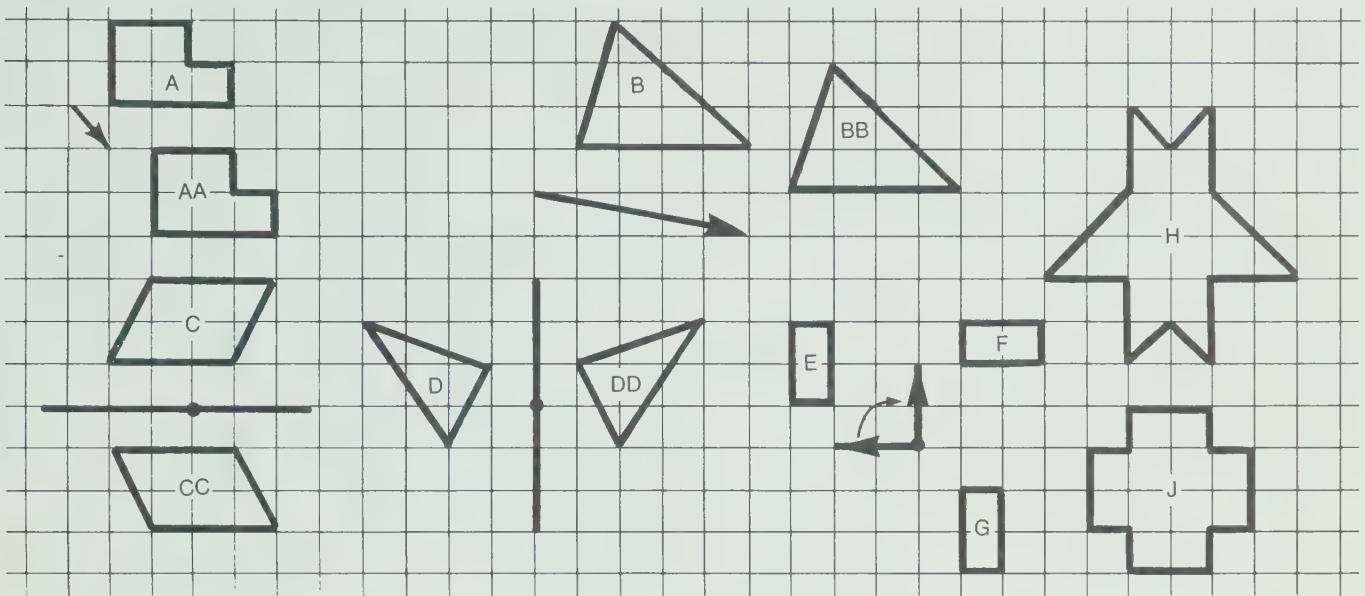
Choose the correct answer.

1. Which shows 50:100 as a percent?
(a) 500% (b) 2% (c) 5% (d) 50%
2. Which shows 0.03 as a percent?
(a) 3% (b) 30% (c) 33% (d) 0.03%
3. Which shows $\frac{9}{20}$ as a percent?
(a) 9% (b) 45% (c) 20% (d) 14%
4. Which shows 6% as a decimal?
(a) 0.06 (b) 0.60 (c) 0.006 (d) 0.66
5. Which shows 65% as a fraction?
(a) $\frac{65}{1}$ (b) $\frac{65}{10}$ (c) $\frac{650}{100}$ (d) $\frac{65}{100}$
6. Which shows 75% as a fraction in lowest terms?
(a) $\frac{3}{4}$ (b) $\frac{75}{10}$ (c) $\frac{100}{75}$ (d) $\frac{5}{7}$
7. Which is 35% of 144?
(a) 504 (b) 54 (c) 50.4 (d) 35
8. Which shows 9 out of 100 as a decimal?
(a) 9.100 (b) 0.9 (c) 0.09 (d) 0.009
9. Which shows 80% as a decimal?
(a) 80.0 (b) 0.08 (c) 0.80 (d) 0.008
10. Which shows 0.5 as a percent?
(a) 0.5% (b) 5% (c) 50% (d) 500%
11. Which shows 3% as a fraction?
(a) $\frac{3}{1}$ (b) $\frac{3}{10}$ (c) $\frac{300}{100}$ (d) $\frac{3}{100}$
12. Which shows $\frac{2}{25}$ as a percent?
(a) 2% (b) 25% (c) 80% (d) 8%

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

13. Which shows 40% as a fraction in lowest terms? 13. _____
 (a) $\frac{4}{100}$ (b) $\frac{2}{50}$ (c) $\frac{40}{1}$ (d) $\frac{2}{5}$ 14. _____
14. Which is 6% of 240? 15. _____
 (a) 40 (b) 144 (c) 12.4 (d) 14.4 16. _____
15. Which shows 35% as a decimal? 17. _____
 (a) 3.5 (b) 0.35 (c) 35.0 (d) 0.0035 18. _____
16. Which shows 80 out of 100 as a percent? 19. _____
 (a) 8% (b) 80% (c) 0.8% (d) 180% 20. _____
17. Which is 40% of 800? 21. _____
 (a) 320 (b) 20 (c) 32 (d) 3200 22. _____
18. Which shows 0.21 as a percent? 23. _____
 (a) 21% (b) 2.1% (c) 0.21% (d) 12% 24. _____
19. Which shows 8% as a fraction in lowest terms?
 (a) $\frac{8}{10}$ (b) $\frac{4}{5}$ (c) $\frac{2}{25}$ (d) $\frac{1}{12}$
20. Which shows $\frac{3}{5}$ as a percent?
 (a) 35% (b) 60% (c) 6% (d) 17%
21. Which shows 90% as a fraction?
 (a) $\frac{90}{100}$ (b) $\frac{9}{100}$ (c) $\frac{900}{100}$ (d) $\frac{90}{1}$
22. 250 bicycle racers try out for the Olympic team. Only 10% are chosen as finalists. How many racers are finalists?
 (a) 10 (b) 25 (c) 50 (d) 100
23. Marco deposited \$300 in a savings account which pays 9% interest. How much interest did his money earn at the end of one year?
 (a) \$9 (b) \$27 (c) \$327 (d) \$270
24. Denise bought her winter coat at a sale. The original price of the coat was \$85. The sale offered a 12% discount. How much was the discount?
 (a) \$10.10 (b) \$10.20 (c) \$12.00 (d) \$74.80

Use tracing paper to help find answers for Exercises 1-8.



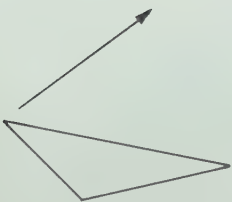
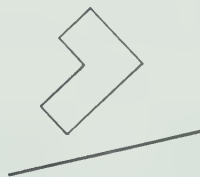
1. For the slide arrow shown, is AA the slide image of A?
2. For the slide arrow shown, is BB the slide image of B?
3. Write the rule suggested by the slide arrow beside shape A.
4. For the flip line shown, is CC the flip image of C?
5. For the flip line shown, is DD the flip image of D?
6. For the turn centre and turn angle shown, is F the turn image of E?
7. For the turn centre and turn angle shown, is G the turn image of F?
8. Does the shape H have turn symmetry?
9. Does the shape J have turn symmetry?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Draw

10. the slide image. 11. the flip image. 12. the turn image.

Draw
on page.

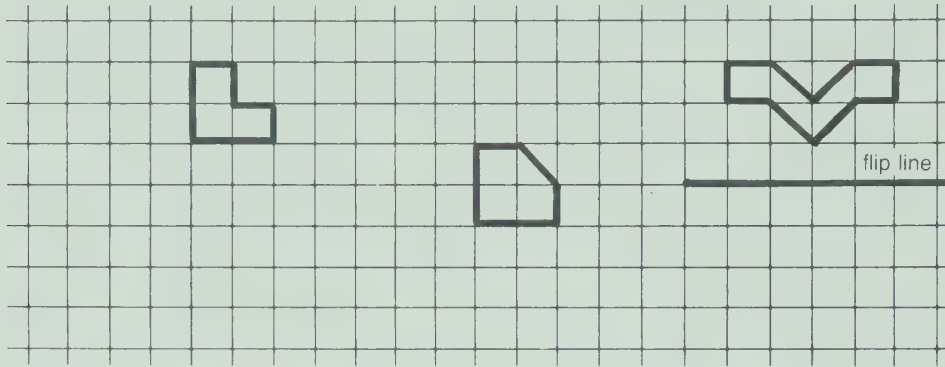


Use the grid below. Do not use tracing paper.

13. Draw the slide image for the rule (1L, 4D).

14. Draw the slide image for the rule (2R, 2U).

15. Draw the flip image.



13.

14.

15. Draw on page.

16.

17.

18. _____

19. _____

20. _____

Use both of these shapes. Draw a pattern without spaces.

16.



Sketch a tessellation that would use this shape.

17.

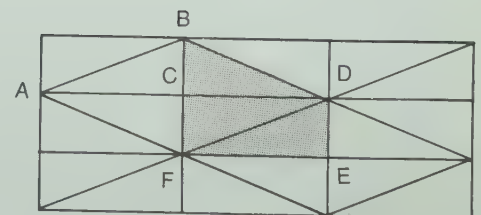


For the tessellation shown,

18. which of the shaded triangles is a slide image of $\triangle ABC$?

19. which of the shaded triangles is a flip image of $\triangle ABC$?

20. which of the shaded triangles is a turn image of $\triangle ABC$?



Choose the correct answer.

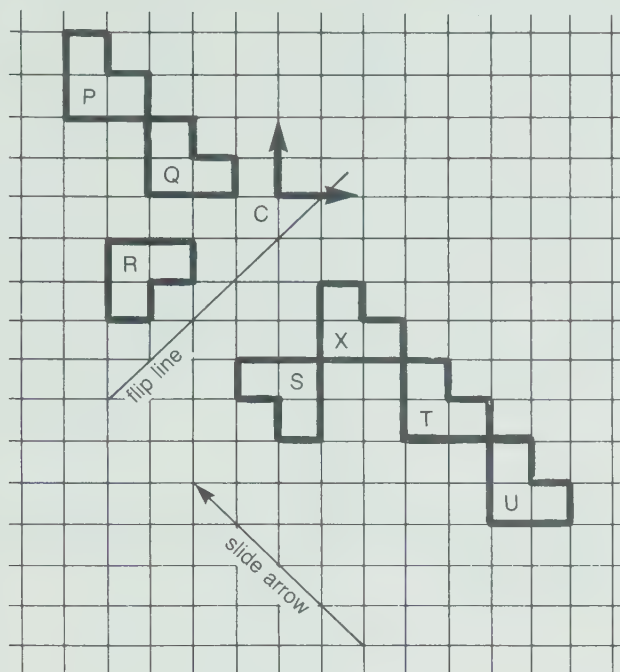
1. _____

Use this diagram for exercises 1 to 4.

2. _____

3. _____

4. _____



1. For the slide arrow shown, which figure is a slide image of figure X?

- (a) P (b) Q (c) R (d) U

2. For the flip line shown, which figure is a flip image of figure X?

- (a) P (b) Q
(c) R (d) no flip image shown

3. For the turn centre C and turn angle shown, which figure is a turn image of figure X?

- (a) Q (b) R (c) S (d) T

4. Which is the rule for the slide arrow shown?

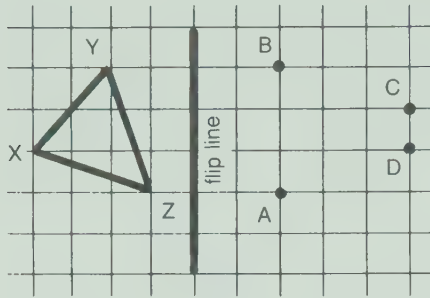
- (a) (4R,4U) (b) (4R,4D) (c) (4L,4D) (d) (4L,4U)

5. Which point is a vertex of the flip image of $\triangle XYZ$?

5. _____

6. _____

7. _____



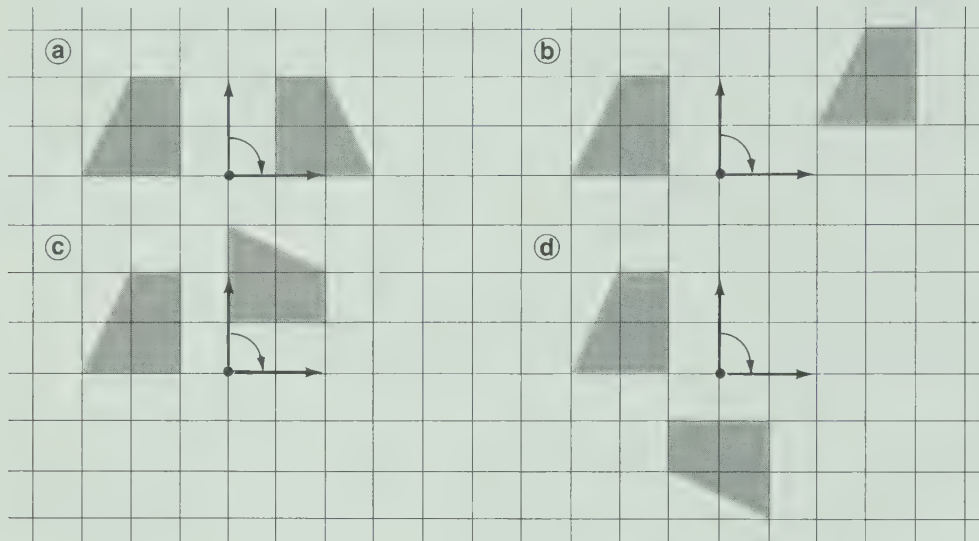
(a) A

(b) B

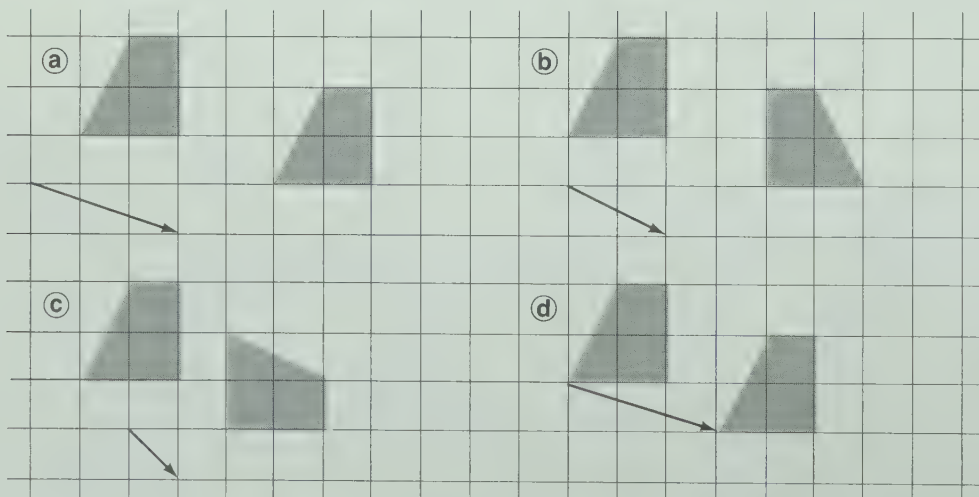
(c) C

(d) D

6. Which shows a figure and its turn image for the given turn angle?



7. Which shows a figure and its slide image for the given slide arrow?

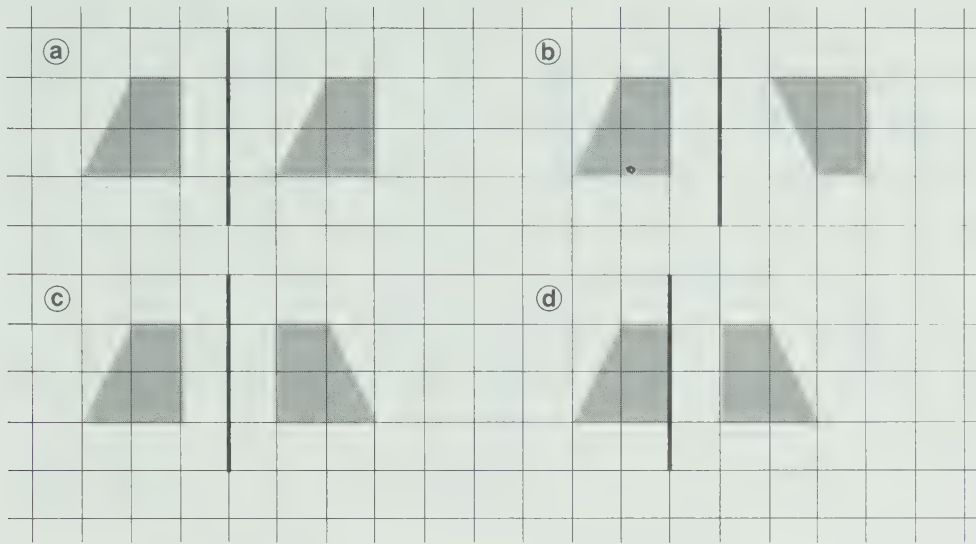


8. Which shows a figure and its flip image for the given flip line?

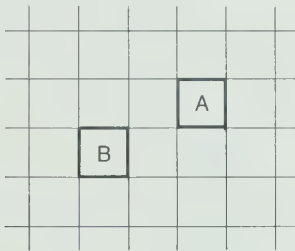
8. _____

9. _____

10. _____

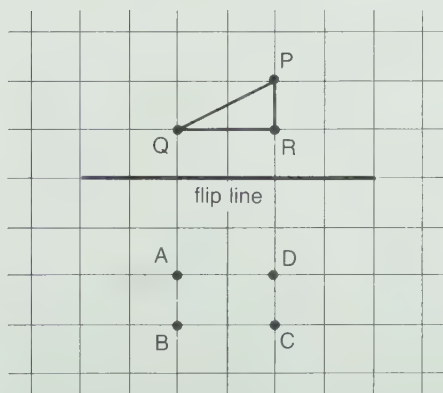


9. Which is the rule for the slide from A to B?



- (a) (2R,1D) (b) (2L,1D) (c) (L2,1D) (d) (1L,2D)

10. Which point is a vertex of the flip image of $\triangle PQR$?



- (a) A (b) B (c) C (d) D

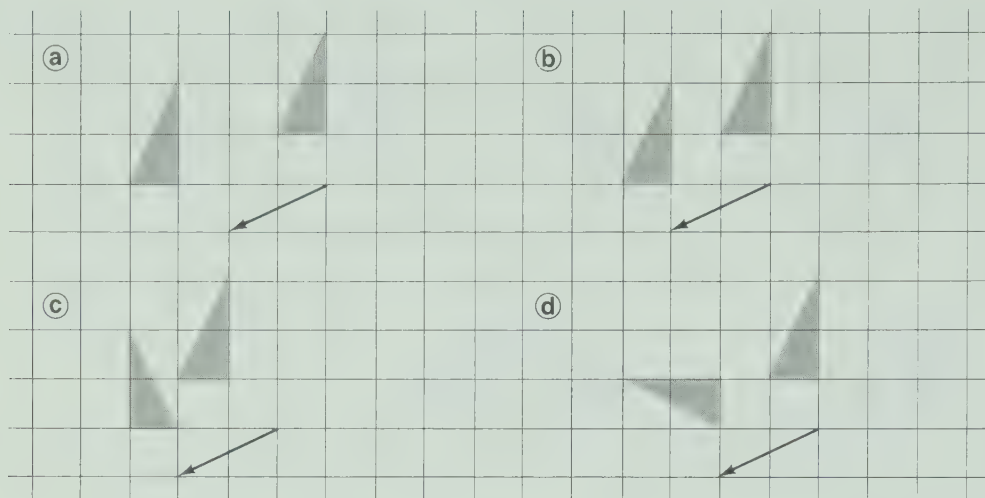


11. Which shows a figure and its slide image for the given slide arrow?

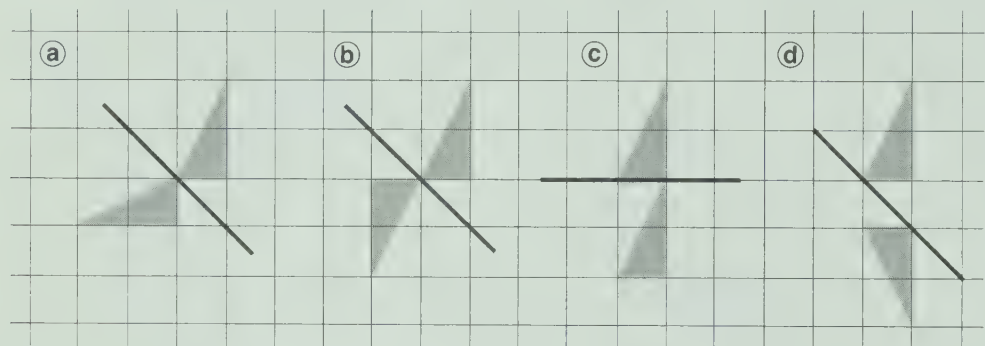
11. _____

12. _____

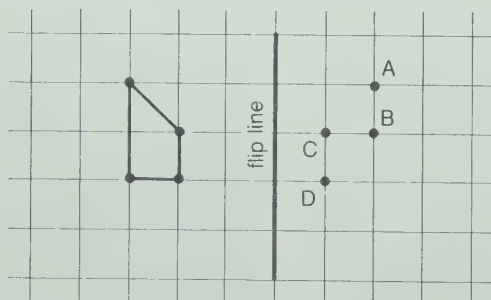
13. _____



12. Which shows a figure and its flip image for the given flip line?



13. Which point is a vertex of the flip image of the given figure?



(a) A

(b) B

(c) C

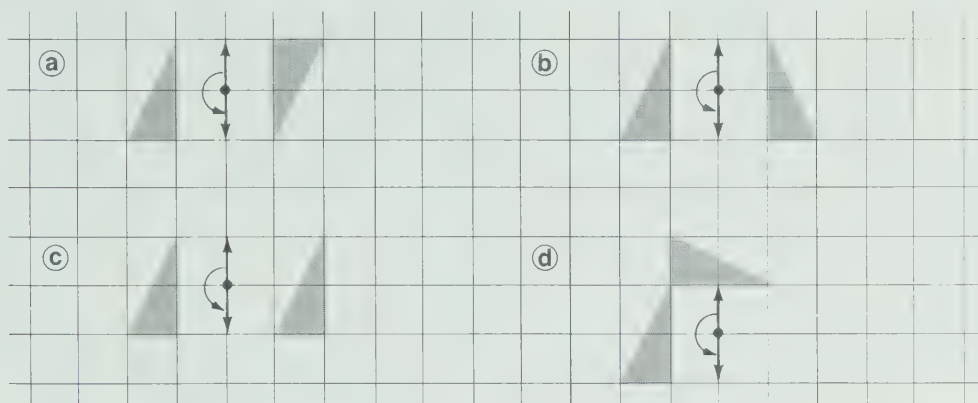
(d) D

14. Which shows a figure and its turn image for the given turn angle?

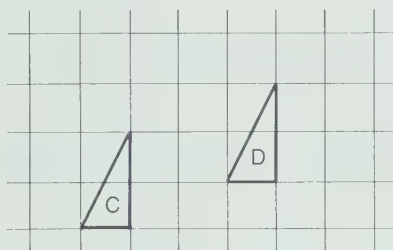
14. _____

15. _____

16. _____

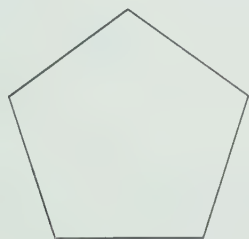


15. Which is the rule for the slide from C to D?



- (a) (3R,1D) (b) (3R,1U) (c) (4R,1U) (d) (1R,3D)

16. For how many different turns less than a full turn does this shape fit onto itself?



- (a) 0 (b) 1 (c) 5 (d) 4

17. Which two shapes can be used together to make a tiling pattern without spaces?

17. _____

18. _____

19. _____

20. _____

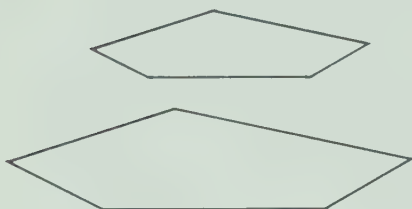
(a)



(b)



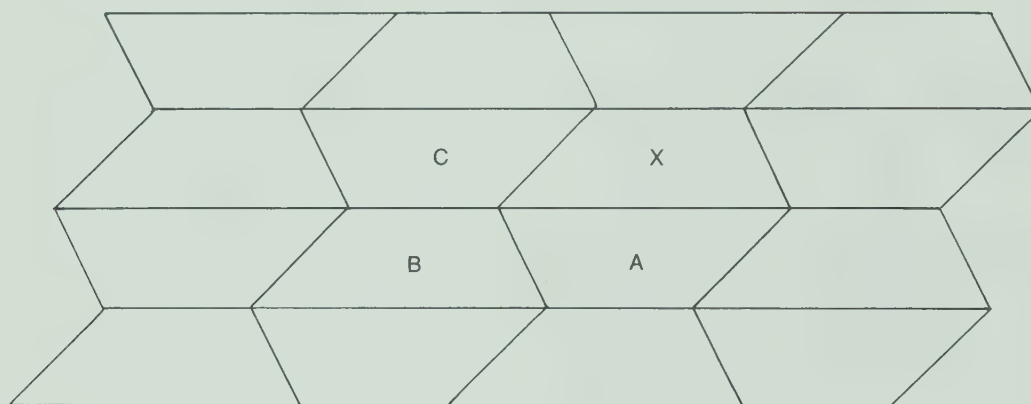
(c)



(d)



Use this tiling pattern for exercises 18 to 20.



18. Which is a slide image of X?

(a) A

(b) B

(c) C

(d) none of A, B, or C

19. Which is a flip image of X?

(a) A

(b) B

(c) C

(d) none of A, B, or C

20. Which are turn images of X?

(a) A and B

(b) A and C

(c) B and C

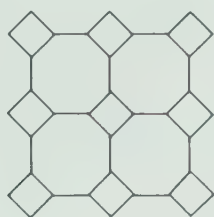
(d) A, B, and C

21. Which two shapes were used in this tiling pattern?

21. _____

22. _____

23. _____



(b)



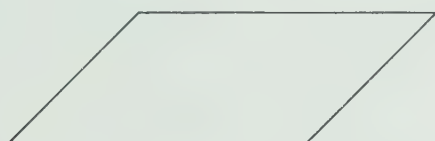
(c)



(d)



22. For how many different turns less than a full turn does this shape fit onto itself?



(a) 1

(b) 0

(c) 2

(d) 4

23. Which shape does not have turn symmetry?

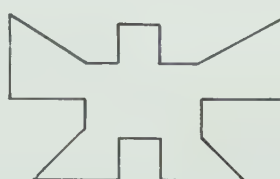
(a)



(b)



(c)



(d)



24. Which two shapes can be used together to make a tiling pattern without spaces?

24. _____

(a)



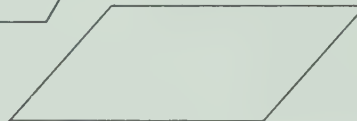
(b)



(c)



(d)



Divide.

1. $0.8 \overline{)3.2}$

2. $0.3 \overline{)16.2}$

3. $0.5 \overline{)7}$

4. $0.4 \overline{)10}$

5. $1.2 \overline{)1.44}$

6. $2.6 \overline{)11.18}$

7. $7.1 \overline{)22.152}$

8. $1.8 \overline{)91.26}$

9. $0.38 \overline{)1.026}$

10. $0.07 \overline{)77.07}$

11. $1.99 \overline{)15.92}$

12. $0.002 \overline{)12.6}$

13. $0.024 \overline{)0.228}$

14. $1.55 \overline{)31.465}$

Divide. Round each quotient to the nearest tenth.

15. $0.3 \overline{)7}$

16. $6.4 \overline{)37.9}$

Divide. Round each quotient to the nearest hundredth.

17. $4.5 \overline{)5}$

18. $0.22 \overline{)3.337}$

Divide or multiply. Write only the results.

19. 8.3×1000

20. 0.004×10

21. $70.08 \div 10$

22. $16 \div 0.1$

23. 2.7×0.1

Solve.

24. Kim had 6.25 m of ribbon. It takes 0.8 m of ribbon to make one bow for a gift package. How many bows could Kim make?

25. Plums cost \$3.82 for each kilogram. How many kilograms can be bought for \$9.55?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____



Choose the correct answer.

1. $0.9 \overline{)18.9}$

- (a) 21 (b) 2.1 (c) 20 (d) 20.1

2. 0.05×10

- (a) 0.5 (b) 0.050 (c) 0.005 (d) 5.0

3. $37.91 \div 0.01$

- (a) 0.3791 (b) 3.791 (c) 379.1 (d) 3791

4. $3.04 \overline{)53.2}$

- (a) 1.75 (b) 175.0 (c) 17.5 (d) 17.56

5. 0.7×0.1

- (a) 0.8 (b) 0.7 (c) 0.007 (d) 0.07

6. $82.6 \div 100$

- (a) 0.826 (b) 8260 (c) 8.26 (d) 0.008 26

7. $7.5 \overline{)1.65}$

- (a) 22 (b) 0.22 (c) 0.202 (d) 2.2

8. $0.425 \overline{)8.84}$

- (a) 20.8 (b) 208.0 (c) 2.08 (d) 28

9. $0.76 \overline{)34.2}$

- (a) 0.45 (b) 4 (c) 45 (d) 4.5

10. 71×0.001

- (a) 0.071 (b) 71 000 (c) 0.000 71 (d) 0.71

11. $0.006 \overline{)5.4}$

- (a) 90 (b) 0.9 (c) 900 (d) 9000

12. $0.065 \div 0.1$

- (a) 0.0065 (b) 6.5 (c) 0.65 (d) 0.0650

13. $2.4 \overline{)7.32}$

- (a) 3.2 (b) 3.05 (c) 0.305 (d) 3.5

1. _____
-
2. _____
-
3. _____
-
4. _____
-
5. _____
-
6. _____
-
7. _____
-
8. _____
-
9. _____
-
10. _____
-
11. _____
-
12. _____
-
13. _____

14. $0.07 \overline{)42}$ 14. _____
(a) 600 (b) 60 (c) 6 (d) 0.6 15. _____
15. $0.125 \overline{)0.38}$ 16. _____
(a) 0.304 (b) 3.04 (c) 3.4 (d) 0.34 17. _____
16. Which shows the quotient of $97.8 \div 4.8$ rounded to the nearest hundredth? 18. _____
(a) 2.04 (b) 2.38 (c) 20.37 (d) 20.38 19. _____
17. Which shows the quotient of $18 \div 3.14$ rounded to the nearest tenth? 20. _____
(a) 0.6 (b) 5.7 (c) 5.8 (d) 57.3 21. _____
18. Which shows the quotient of $0.154 \div 0.06$ rounded to the nearest hundredth? 22. _____
(a) 25.67 (b) 0.26 (c) 2.56 (d) 2.57 23. _____
19. Which shows the quotient of $2.43 \div 0.6$ rounded to the nearest tenth? 24. _____
(a) 4.2 (b) 4.0 (c) 4.5 (d) 4.1
20. Which shows the quotient of $26.2 \div 6.37$ rounded to the nearest hundredth?
(a) 41.13 (b) 4.11 (c) 4.12 (d) 0.41
21. Which shows the quotient of $0.522 \div 0.7$ rounded to the nearest thousandth?
(a) 0.746 (b) 0.745 (c) 0.075 (d) 7.457
22. A roll of tape contains 32.9 m. You need 0.3 m of tape to hang a map. How many maps could you hang if you used the whole roll?
(a) 11 (b) 110 (c) 109 (d) 107
23. Mr. Sturnolio bought 10 kg of hamburger. He separated the hamburger into freezer bags holding about 1.25 kg each. How many freezer bags did he need?
(a) 5 (b) 6 (c) 8 (d) 10
24. Each kilogram of steak costs \$9.50. How much could be bought for \$14.25?
(a) 0.15 kg (b) 15 kg (c) 1.6 kg (d) 1.5 kg

Which are positive integers?

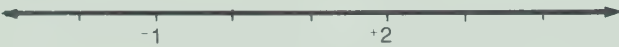
1. 0, +3, -3, +5, -7

Which are negative integers?

2. +1, -2, +3, 0, -4

Complete.

3.

Use $>$ or $<$ to make true statements.

- 4.
- $+5 \ominus +7$
- 5.
- $+4 \ominus -4$
- 6.
- $-4 \ominus -5$
- 7.
- $-3 \ominus +2$

List from greatest to least.

8. +6, -5, +1, 0, +3, -4

Add. Use a number line if you wish.

9. $+7 + +2$ 10. $-3 + -2$ 11. $+3 + -1$
12. $+2 + -6$ 13. $-5 + +3$ 14. $-1 + +1$

For each of these, tell how many degrees the temperature changed. Then tell whether the temperature rose or fell.

15. $+20^{\circ}\text{C}$ to $+10^{\circ}\text{C}$ 16. $+10^{\circ}\text{C}$ to -10°C
17. -5°C to 0°C 18. -2°C to -10°C

Solve.

19. In two rounds of a game, Irma scored -5 points and +9 points. What was her score after the two rounds?
20. The temperature was $+5^{\circ}\text{C}$ at noon and -6°C at midnight. What was the difference between the two temperatures?

1. _____
2. _____
3. Use the number line.
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Choose the correct answer.

1. Which list contains the first three negative integers?

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

- (a) 0, -1, -2 (b) 0, +1, +2 (c) -1, -2, -3 (d) +1, +2, +3

2. Which point on the number line matches -3?



- (a) A (b) B (c) C (d) D

3. Which is a true statement?

- (a) $-5 > -2$ (b) $+2 > +5$ (c) $-2 > -5$ (d) $+5 < +2$

4. Which list shows the numbers from greatest to least?

- (a) $\begin{array}{c} +3 \\ +1 \\ 0 \\ -2 \\ -4 \end{array}$ (b) $\begin{array}{c} +3 \\ +1 \\ -4 \\ -2 \\ 0 \end{array}$ (c) $\begin{array}{c} -4 \\ -2 \\ 0 \\ +1 \\ +3 \end{array}$ (d) $\begin{array}{c} -4 \\ +3 \\ -2 \\ +1 \\ 0 \end{array}$

5. Which is the missing point on the number line?



- (a) -4 (b) 0 (c) +3 (d) -2

6. Which list shows the numbers from least to greatest?

- (a) $\begin{array}{c} +5 \\ +3 \\ 0 \\ -2 \\ -4 \end{array}$ (b) $\begin{array}{c} 0 \\ -2 \\ +3 \\ -4 \\ +5 \end{array}$ (c) $\begin{array}{c} -2 \\ -4 \\ 0 \\ +3 \\ +5 \end{array}$ (d) $\begin{array}{c} -4 \\ -2 \\ 0 \\ +3 \\ +5 \end{array}$

7. Which group contains only negative integers?

- (a) -5, +3, -3, -1 (b) -3, -2, -1, -4
(c) -4, 0, -6, +1 (d) -3, -2, 0, -1

8. Which is a true statement?

- (a) $-4 < -6$ (b) $-3 > +2$ (c) $-8 < -1$ (d) $0 < -1$

9. Which list contains the first three positive integers?

- (a) 0, +1, +2 (b) +1, +2, +3 (c) 0, -1, -2 (d) -1, -2, -3

10. Which is not a true statement?

- (a) $+4 > 0$ (b) $-3 > -4$ (c) $+3 > -4$ (d) $-3 > 0$

11. Which is the missing point on the number line?



- (a) -2 (b) -4 (c) +4 (d) 2

12. Which list shows the numbers from greatest to least?

- (a)

+11
+1
0
-10
-100

- (b)

-100
-10
0
+1
+11

- (c)

-100
+11
-10
+1
0

- (d)

+11
+1
0
-100
-10

13. $-3 + -3$ (a) -6 (b) 0 (c) +6 (d) +9

14. $-4 + +2$ (a) +2 (b) +6 (c) -6 (d) -2

15. $+5 + -1$ (a) +6 (b) +4 (c) -6 (d) -4

16. When the temperature went from -5°C to $+10^{\circ}\text{C}$, it

- (a) rose 15 degrees. (b) fell 15 degrees.
(c) rose 5 degrees (d) fell 5 degrees.

17. When the temperature went from -2°C to -7°C , it

- (a) rose 9 degrees. (b) fell 9 degrees.
(c) fell 5 degrees. (d) rose 5 degrees.

9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____

18. When the temperature went from $+4^{\circ}\text{C}$ to -3°C , it
 Ⓐ fell 1 degree. Ⓑ rose 7 degrees.
 Ⓒ fell 7 degrees. Ⓓ rose 1 degree.
19. In two rounds of a game, Jerome scored $+7$ points and -6 points.
How many points did he score in all?
 Ⓐ -13 Ⓑ -1 Ⓒ $+13$ Ⓓ $+1$
20. In four rounds of a game, Yogin scored $+5$, -4 , $+3$, and -6 points.
How many points did he score in all?
 Ⓐ $+18$ Ⓑ -4 Ⓒ $+2$ Ⓓ -2
21. Aminta's scores for two rounds were -7 and -3 points.
How many points did she score in all?
 Ⓐ -4 Ⓑ -10 Ⓒ $+4$ Ⓓ $+10$

Choose the correct answer.

1. Which is the greatest?

- (a) 697 883 (b) 6 798 327 (c) 6 978 283 (d) 6 793 868

2. Which shows 4 865 305 rounded to the nearest ten thousand?

- (a) 5 000 000 (b) 4 900 000 (c) 4 870 000 (d) 4 860 000

3. Which shows 5 972 000 rounded to the nearest hundred thousand?

- (a) 6 000 000 (b) 5 900 000 (c) 5 000 000 (d) 5 970 000

4. 6 310 103 _____ 6 301 331

- (a) > (b) < (c) = (d) +

5. Which is a true statement?

- (a) 8 932 000 < 9 832 (b) 8 932 000 < 983 200
(c) 8 932 000 > 983 200 (d) 8 932 000 < 8 393 000

6. Which number is not 250 000 when rounded to the nearest ten thousand?

- (a) 251 684 (b) 254 301 (c) 249 718 (d) 255 105

7.
$$\begin{array}{r} 9\ 4\ 6\ 7 \\ +\ 8\ 3\ 5\ 6 \\ \hline \end{array}$$
 (a) 17 713 (b) 17 823 (c) 1111 (d) 17 813

8.
$$\begin{array}{r} 8\ 2\ 7\ 3 \\ -\ 7\ 0\ 9\ 2 \\ \hline \end{array}$$
 (a) 15 365 (b) 1221 (c) 1181 (d) 1281

9.
$$\begin{array}{r} 9\ 6 \\ \times\ 8\ 3 \\ \hline \end{array}$$
 (a) 179 (b) 1056 (c) 7868 (d) 7968

10.
$$8 \overline{)7360}$$
 (a) 92 (b) 920 (c) 1220 (d) 58 880

11.
$$\begin{array}{r} 6\ 2\ 3\ 2\ 1 \\ -\ 4\ 8\ 0\ 9\ 7 \\ \hline \end{array}$$
 (a) 14 224 (b) 24 334 (c) 26 376 (d) 110 418

12.
$$\begin{array}{r} 4\ 0\ 8\ 1 \\ \times\ 5\ 7 \\ \hline \end{array}$$
 (a) 232 617 (b) 222 517 (c) 48 972 (d) 27 417

13.
$$\begin{array}{r} 7\ 2\ 4\ 1 \\ +\ 5\ 0\ 6\ 8 \\ \hline \end{array}$$
 (a) 12 309 (b) 12 209 (c) 14 309 (d) 2173

14.
$$32 \overline{)6688}$$
 (a) 29 (b) 22 R24 (c) 209 (d) 204 R24

15.
$$\begin{array}{r} 525 \\ \times 132 \\ \hline \end{array}$$
 (a) 657 (b) 3150 (c) 68 190 (d) 69 300 15. _____
16.
$$\begin{array}{r} 157 \\ 309 \\ 253 \\ + 140 \\ \hline \end{array}$$
 (a) 758 (b) 759 (c) 749 (d) 859 16. _____
17.
$$\begin{array}{r} 20900 \\ - 12783 \\ \hline \end{array}$$
 (a) 33 683 (b) 8117 (c) 12 283 (d) 18 227 17. _____
18. $56 \overline{)41328}$ (a) 89 R74 (b) 809 R74 (c) 79 R8 (d) 738 18. _____
19. $2.081 \text{ } \underline{\hspace{1cm}} \text{ } 2.18$ (a) $>$ (b) $<$ (c) $=$ (d) $+$ 19. _____
20. Which is the greatest? (a) 5.405 (b) 5.54 (c) 5.05 (d) 5.054 20. _____
21. Which is a true statement? (a) $1.091 > 1.91$ (b) $1.109 < 1.091$ (c) $1.091 > 1.019$ (d) $1.19 < 1.091$ 21. _____
22. $3.127 + 4.6 + 2$ (a) 9727 (b) 3175 (c) 0.9727 (d) 9.727 22. _____
23. $400 - 0.379$ (a) 21 (b) 400.379 (c) 403.379 (d) 399.621 23. _____
24.
$$\begin{array}{r} 7.9 \\ \times 6.5 \\ \hline \end{array}$$
 (a) 51.35 (b) 513.5 (c) 86.9 (d) 5135 24. _____
25. $48 \overline{)\$32.64}$ (a) \$0.8 R24 (b) \$68 (c) \$805 (d) \$0.68 25. _____
26.
$$\begin{array}{r} 33.3 \\ - 16.9 \\ \hline \end{array}$$
 (a) 50.2 (b) 16.4 (c) 27.4 (d) 17.4 26. _____
27. $3.2 \overline{)64.96}$ (a) 23 (b) 20.3 (c) 2.03 (d) 203 27. _____
28.
$$\begin{array}{r} 8.36 \\ \times 0.9 \\ \hline \end{array}$$
 (a) 7524 (b) 7.524 (c) 7284 (d) 7.284 28. _____

29.
$$\begin{array}{r} \$418.98 \\ + 327.59 \\ \hline \end{array}$$
 (a) \$746.57 (b) \$735.47 (c) \$736.57 (d) \$91.39

29. _____

30. _____

30.
$$\begin{array}{r} 8.751 \\ - 5.623 \\ \hline \end{array}$$
 (a) 14.374 (b) 3.132 (c) 3.128 (d) 3.138

31. _____

32. _____

31.
$$\begin{array}{r} 1.31 \\ \times 0.42 \\ \hline \end{array}$$
 (a) 786 (b) 55.02 (c) 0.5502 (d) 0.0786

33. _____

34. _____

35. _____

32.
$$\begin{array}{r} 9.414 \\ + 4.199 \\ \hline \end{array}$$
 (a) 5.215 (b) 13.613 (c) 13.503 (d) 13.603

36. _____

37. _____

33. $0.3 \overline{)11.28}$ (a) 3.76 (b) 37.6 (c) 376 (d) 37

38. _____

39. _____

34. Which shows $\frac{1}{4}$ as a decimal?

40. _____

- (a) 25 (b) 4 (c) 0.25 (d) 1.4

41. _____

35. Which shows $\frac{3}{8}$ as a decimal?

- (a) 2.666 (b) 375 (c) 3.8 (d) 0.375

36. Which shows $\frac{11}{5}$ as a decimal?

- (a) 11.5 (b) 2.2 (c) 0.4545 (d) $2\frac{1}{5}$

37. $\frac{3}{4} + \frac{1}{2}$

- (a) $\frac{4}{6}$ (b) $\frac{5}{4}$ (c) $\frac{1}{4}$ (d) $\frac{1}{2}$

38. $\frac{3}{4} - \frac{2}{3}$

- (a) $\frac{1}{4}$ (b) $\frac{17}{12}$ (c) $\frac{1}{1}$ (d) $\frac{1}{12}$

39. $\frac{2}{3} \times \frac{3}{8}$

- (a) $\frac{1}{4}$ (b) $\frac{6}{8}$ (c) $\frac{6}{3}$ (d) $\frac{5}{13}$

40. $\frac{4}{9} \div \frac{1}{3}$

- (a) $\frac{4}{27}$ (b) $\frac{4}{3}$ (c) $\frac{3}{4}$ (d) $\frac{27}{4}$

41. $3\frac{1}{2} - 2\frac{1}{4}$

- (a) $5\frac{3}{4}$ (b) $1\frac{0}{2}$ (c) $1\frac{1}{4}$ (d) 1

42. $\frac{3}{4} \div \frac{4}{5}$

Ⓐ $\frac{3}{5}$

Ⓑ $\frac{15}{16}$

Ⓒ $\frac{5}{3}$

Ⓓ $\frac{16}{15}$

42. _____

43. _____

44. _____

43. $1\frac{1}{4} + 3\frac{1}{2}$

Ⓐ $4\frac{3}{4}$

Ⓑ $4\frac{2}{6}$

Ⓒ $\frac{3}{4}$

Ⓓ $4\frac{1}{2}$

45. _____

46. _____

47. _____

44. $\frac{1}{4} \times \frac{1}{4}$

Ⓐ $\frac{2}{8}$

Ⓑ $\frac{2}{16}$

Ⓒ $\frac{1}{8}$

Ⓓ $\frac{1}{16}$

48. _____

49. _____

50. _____

45. $4\frac{1}{5} - 2\frac{2}{3}$

Ⓐ $1\frac{8}{15}$

Ⓑ $6\frac{13}{15}$

Ⓒ $6\frac{3}{8}$

Ⓓ $2\frac{1}{2}$

46. $6 \times \frac{3}{4}$

Ⓐ $6\frac{3}{4}$

Ⓑ $\frac{9}{4}$

Ⓒ $\frac{9}{2}$

Ⓓ $\frac{12}{4}$

47. $3 + 1\frac{2}{3}$

Ⓐ 4

Ⓑ $1\frac{5}{3}$

Ⓒ $4\frac{2}{3}$

Ⓓ $2\frac{2}{3}$

48. $3 \div \frac{1}{6}$

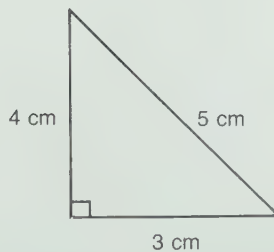
Ⓐ $3\frac{1}{6}$

Ⓑ $\frac{1}{18}$

Ⓒ 2

Ⓓ 18

49. Which is the perimeter of this triangle?



Ⓐ 6 cm

Ⓑ 12 cm

Ⓒ 13 cm

Ⓓ 7 cm

50. Which is the area of the triangle in exercise 49?

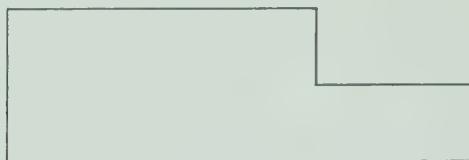
Ⓐ 6 cm^2

Ⓑ 12 cm^2

Ⓒ 13 cm^2

Ⓓ 7 cm^2

51. Use a centimetre ruler. Which is the perimeter?



51. _____

52. _____

53. _____

54. _____

55. _____

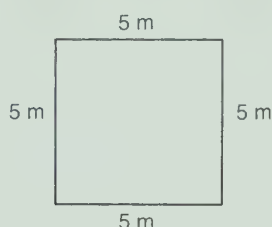
56. _____

- (a) 14 cm (b) 15 cm (c) 16 cm (d) 17 cm

52. Which is the perimeter of a rectangle with dimensions 5 m and 4 m?

- (a) 9 m (b) 18 m (c) 20 m (d) 40 m

53. Which is the perimeter of this square?

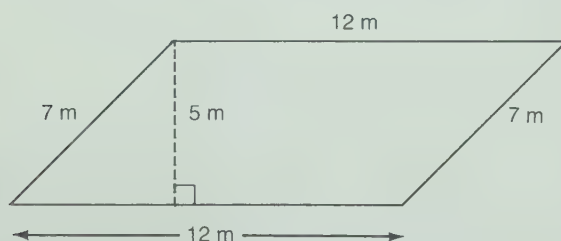


- (a) 5 m (b) 20 m (c) 25 m (d) 625 m

54. Which is the area of the square in exercise 53?

- (a) 5 m² (b) 20 m² (c) 25 m² (d) 625 m²

55. Which is the perimeter of this parallelogram?



- (a) 17 m (b) 19 m (c) 34 m (d) 38 m

56. Which is the area of the parallelogram in exercise 55?

- (a) 60 m² (b) 84 m² (c) 43 m² (d) 30 m²

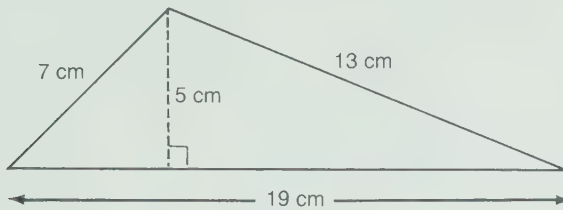
57. Which is the area of this triangle?

57. _____

58. _____

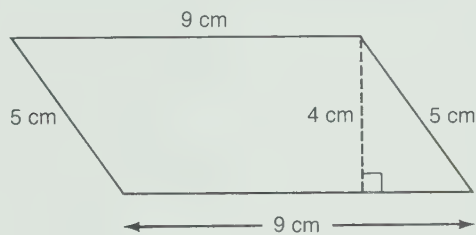
59. _____

60. _____



- (a) 39 cm^2 (b) 44 cm^2 (c) 47.5 cm^2 (d) 66.5 cm^2

58. Which is the area of this parallelogram?

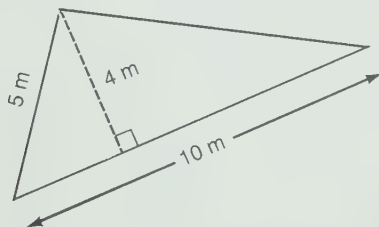


- (a) 18 cm^2 (b) 45 cm^2 (c) 36 cm^2 (d) 28 cm^2

59. Which is the perimeter of a rectangle with sides 2 cm and 6 cm?

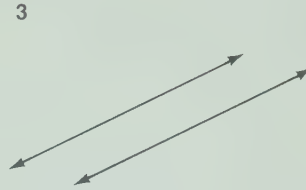
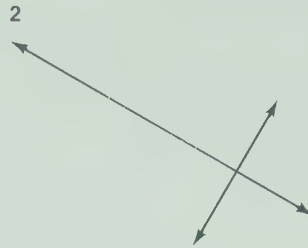
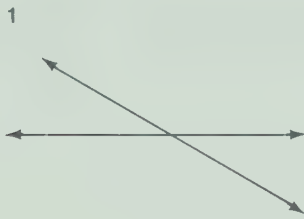
- (a) 8 cm (b) 12 cm (c) 16 cm (d) 24 cm

60. Which is the area of this triangle?



- (a) 20 cm^2 (b) 25 cm^2 (c) 40 cm^2 (d) 56 cm^2

Use these diagrams for exercises 61 to 63.



61. _____

62. _____

63. _____

64. _____

65. _____

66. _____

61. Which shows two parallel lines?

- (a) 1 (b) 2 (c) 3 (d) 1 and 2

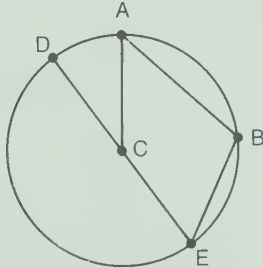
62. Which shows two perpendicular lines?

- (a) 1 (b) 2 (c) 3 (d) 1 and 2

63. Which shows two intersecting lines?

- (a) 1 (b) 2 (c) 3 (d) 1 and 2

Use this diagram for exercises 64 to 66.



64. Which is a radius of the circle?

- (a) AB (b) AC (c) DE (d) BE

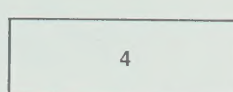
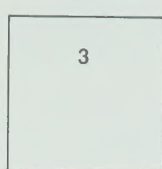
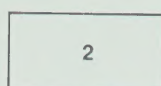
65. Which is a diameter of the circle?

- (a) AB (b) AC (c) DE (d) BE

66. Which is not a chord of the circle?

- (a) AB (b) AC (c) DE (d) BE

Use these shapes for exercises 67 to 69.



67. _____

68. _____

69. _____

70. _____

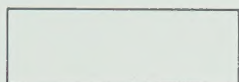
71. _____

72. _____

67. Which shapes are similar?

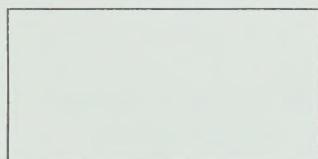
- (a) 1 and 2 (b) 1 and 3 (c) 1 and 4 (d) 2 and 4

68. Which shape is congruent to this shape?



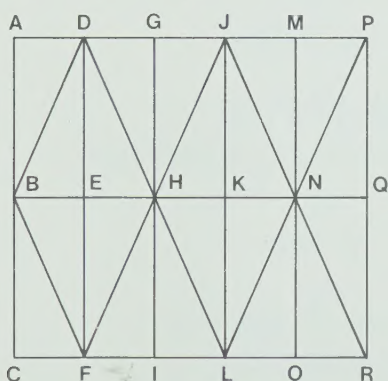
- (a) 1 (b) 2 (c) 3 (d) 4

69. Which shape is similar to this shape?



- (a) 1 (b) 2 (c) 3 (d) 4

Use this diagram for exercises 70 to 72.



70. Which triangle names a turn image of $\triangle EDB$?

- (a) $\triangle JHK$ (b) $\triangle EDH$ (c) $\triangle EFB$ (d) $\triangle EFH$

71. Which triangle names a flip image for $\triangle PQN$?

- (a) $\triangle PMN$ (b) $\triangle KNL$ (c) $\triangle JKN$ (d) $\triangle NOL$

72. Which triangle names a slide image for $\triangle BEF$?

- (a) $\triangle JMN$ (b) $\triangle HEF$ (c) $\triangle NKL$ (d) $\triangle JKN$

73. Which is the missing term in $21:12 = \blacksquare:4$?
(a) 13 (b) 7 (c) 69 (d) 8
74. Which shows $\frac{25}{100}$ as a percent?
(a) 25 (b) 0.25 (c) 25% (d) $\frac{25}{100}\%$
75. Which shows 0.05 as a percent?
(a) 0.05% (b) 5% (c) 50% (d) 5
76. Which is the missing term in $2:5 = 8:\blacksquare$?
(a) 11 (b) 10 (c) 20 (d) 80
77. Which shows $\frac{4}{5}$ as a percent?
(a) $\frac{4}{5}\%$ (b) 125% (c) 1.25 (d) 80%
78. Which is the missing term in $6:8 = 9:\blacksquare$?
(a) 11 (b) 14 (c) 10 (d) 12
79. The sales at the bakery were \$1112.30 on Monday, \$1039.45 on Tuesday, \$987.05 on Wednesday, \$791.85 on Thursday, and \$1201.90 on Friday. Which were the total sales for the week?
(a) \$3353.65 (b) \$5132.55 (c) \$3930.65 (d) \$4340.70
80. A field has dimensions of 50 m by 75 m. Which is its area?
(a) 125 m^2 (b) 3750 m^2 (c) 250 m^2 (d) 7500 m^2
81. The schools had 10 076 students registered last year. This year 9908 students were registered. How many fewer students registered this year?
(a) 11 174 (b) 19 972 (c) 19 984 (d) 168
82. The dance floor was covered with square wooden tiles. There were 172 tiles in each row and 238 rows. How many tiles were there?
(a) 410 (b) 2380 (c) 40 936 (d) 39 836
83. A box is 42 cm wide, 68 cm long, and 12 cm high. Which is its volume?
(a) 122 cm (b) 122 cm^3 (c) 34 272 cm (d) $34 272 \text{ cm}^3$
84. Brian has finished typing 86% of his term paper. It has 50 pages. How many pages has he typed so far?
(a) 43% (b) 43 pages (c) 100 pages (d) 100%

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